

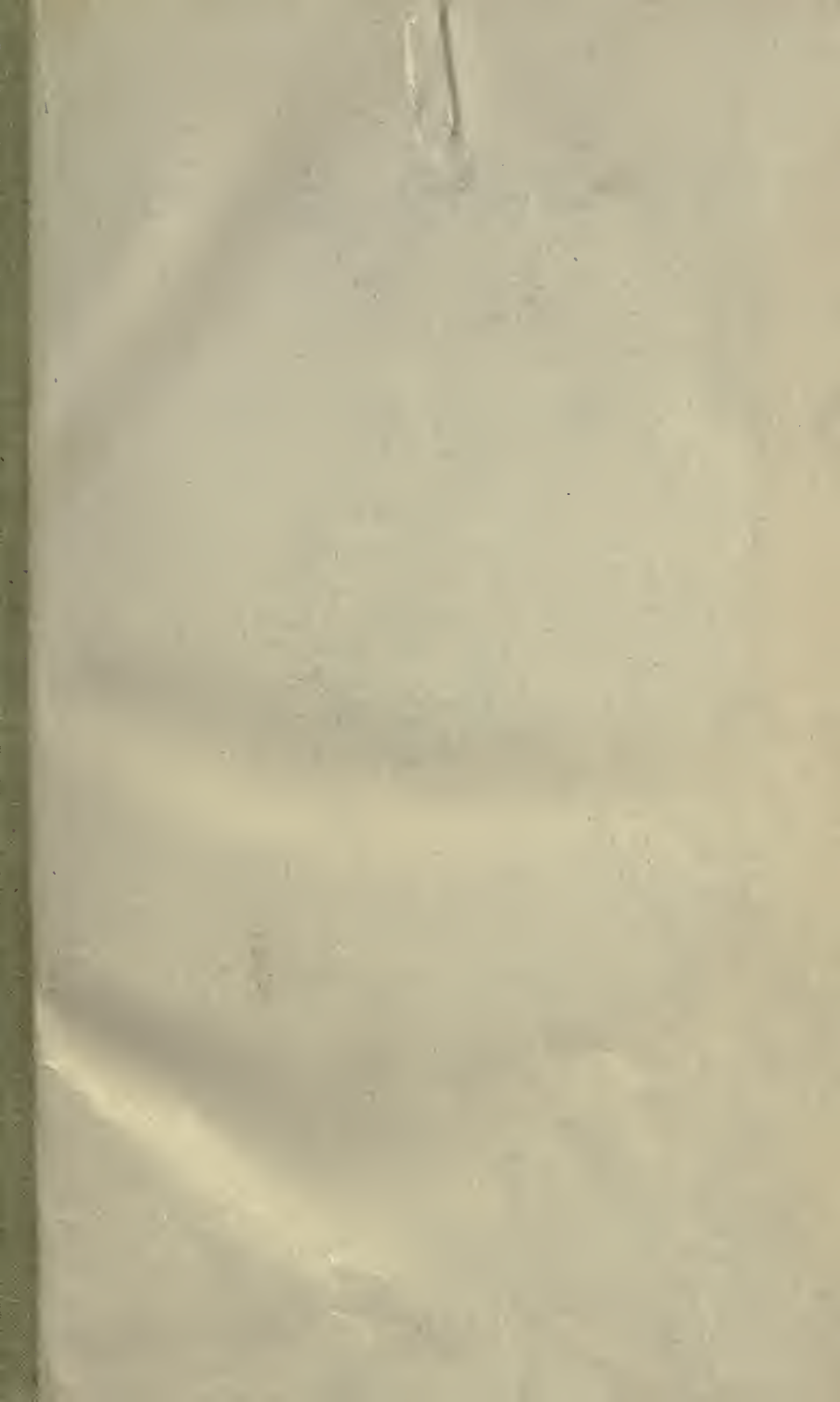
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CHINESE CURRENCY

BY J. EDKINS, D.D.



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PREFACE.

The facts of this work have been collected from Chinese books and journals and from Customs' publications, and they have been as far as possible brought up to date. At present the Chinese are importing both gold and silver. In 1900, according to Mr. F. E. Taylor's very valuable report on trade, gold was imported from Japan because many rich Chinese wished for the most portable metal in case they needed to fly to a distance through the mischances of war. Silver was imported to the amount of fifteen million and a half taels. In addition to this sum, known from the Customs' books, there was an enormous import of British, French, and Mexican dollars, brought by the foreign armies which captured Tientsin and Peking. In Manchuria and Chihli dollars are now more plentiful than sycee. The circulation of foreign dollars in the north of China has increased so much as to help the people, in a considerable degree, to recover the commerce which was interrupted by the war of 1900, the year of cruel massacres and severe retribution.

The payment of heavy indemnities must greatly deplete the currency throughout China. The people will be compelled to increase their exports in order to adjust the balance of trade. The silver which leaves the country ought to come back in payments for exports. This is according to present appearances likely to occur. The country happily is resuming its usual state of tranquillity. The Boxer movement was abnormal. The people at large will soon return, where there have been rude disturbances, to the quiet pursuits of industry, and money will quickly come back to the cultivator, the weaver, and the trader.

Although this book is compiled from Chinese sources almost entirely, yet Chinese books are liable to errors. Dr. S. W. Bushell wrote me some years since in reference to so old and excellent an authority as the *Shi-ki* of Sz-ma-tsien, B. C. 100, that it has made a mistake in saying that coins of the Ts'in dynasty are without a legend. We have even coins in our collections with the inscriptions Pau-ho, Pau-sz-ho, Pau-lin-ho, which are referred with every probability to a yet older dynasty—the Chow.

In China ancient customs linger—as in the language and literature, so in the currency. Salt cakes, adds Dr. Bushell, are still in use as currency on the borders of Yünnan as they were in the days of Marco Polo. The stamped leather of the Han currency seems to prefigure a paper issue. The same may be said of seals—used in China for more than 2,000 years. The stamped bricks of the Babylonian mounds form a link in the chain of facts which show that civilized usages cannot die out. Primaevial civilization develops new arts in every succeeding age, and the natural intelligence of the human mind, the gift of the Creator, aids in preventing the decay of our race, and in securing its perpetual progress towards the beautiful, the good, and the true.

In writing to Dr. Bushell I had referred to white money medals in use in the Han dynasty which could hardly enter into circulation as money, being so easily counterfeited. He agreed with that remark and said they were but tokens. He had an oblong specimen in his possession, with a horse in relief and made with very inferior alloy. Currency is a help to the interchange of commodities, and China has not been behind in the invention of convenient forms of money. Unfortunately China has fallen under the temptation to consume large quantities of a very expensive drug. The price of opium has risen on account of the change of Indian currency from silver to gold. The Chinese pay as much now for the Indian opium they buy

as they did twenty years ago for a far less quantity. The abrupt change to gold monometallism in India has caused severe loss to China. This is shown in the following manner:—

In 1897 the statistics of the opium trade tell us that 27,000,000 taels of silver purchased 49,217 piculs of opium, and this was nearly the same as the amount spent by China in purchasing 74,000 piculs in 1887. Since the closing of the Indian mints to silver coinage the amount of that metal paid by China for Indian opium has increased. In 1898 the value of the import was Taels 29,000,000, yet the amount of opium purchased from India was only 49,785 piculs. In 1880 when the Chinese bought 71,654 piculs of foreign opium the cost was 32,344,628 Taels of silver. The effect of the change in Indian currency is to increase the burdens of China. In 1879 the import was 83,000 piculs, and the cost Taels 36,000,000. In 1899 and 1900 the import was 59,000 and 49,000 piculs and the cost 35,700,000 and 29,600,000 Taels. There was in the year 1899 a marked increase of the import at Shanghai, Chinkiang, and Canton. This was contemporaneous with an alarming advance in the quantity of the morphia import. These three cities enjoy great commercial prosperity. This fact is well established in the Customs' statistics. As the people become richer they indulge to a large extent in the opium vice. The advance in the import of morphia is a proof of the increase in the tyrannical sway of opium over the Chinese people. More persons every year are adopting the habit. The Customs' trade report says that the native crop has been deficient and that this is supposed to be the cause of the phenomenal growth of the foreign import. It seems, however, beyond reasonable doubt that more persons than ever are now falling into the temptation to smoke opium or to swallow morphia pills. The result must be increased drain of silver to pay for foreign opium, but each person who, induced by economy, exchanges opium for morphia, effects a saving of perhaps

25 %. Since morphia is more injurious than opium smoking, it is impossible at present to foresee the extent of social mischief it will occasion in future years. This may be so great as to check its destructive advance. Meanwhile there is no room for doubt that the sale of Indian opium is maintained, and with it the drain of silver caused by its higher price.

JOS. EDKINS.

PEKING, *April 24th, 1901.*



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CURRENCY IN CHINA.



Currency Principles are Known to the Chinese.

The principles which regulate currency in a country are the same in China as elsewhere.

The amount of copper, silver, or gold money bears a proportion to the amount of trade. Trade is increasing in China, as the annual reports of trade shew. Every purchase not being simple barter requires money or paper representing money. Without this a purchase cannot be made. When paper money is used there must be credit based on a reserve of silver or copper coins, and on the part of buyer and seller there must be honesty and loyalty in fulfilling obligations. Good silver and copper coins in sufficient quantity for the use of buyers are requisite for China at the present time. Paper representatives of money are needed to allow the gradual expansion of trade. The people will loyally meet commercial obligations if they are taught morality. It will be possible to make purchases if the government coins money sufficient in amount. Sales of goods to foreign buyers cause an influx of silver and so the volume of silver in circulation is increased. It is a constant duty of the government to make more copper money to maintain the balance between silver and copper. If the government mints are sufficiently active the dollar and the tael will always change for the same number of copper cash. This even balance ought to be the aim of mint superintendents.

That currency principles are known to the Chinese may be seen in the works of native writers on the subject. The advantages of paper currency they discuss in the following manner:—

TEN BENEFITS IN THE USE OF PAPER CURRENCY.

1. Paper notes having a money value can be manufactured in each province. 2. Such notes can be sent to other provinces. 3. Paper notes are convenient to carry, being light. 4. They can be kept safely. 5. Paper notes do not depreciate in touch and quantity. There is an advantage over silver in this respect. 6. They do not need scales to weigh them. 7. The melter cannot surreptitiously abstract from the weight as is done with silver. 8. Notes are easily hidden from thieves. 9. The copper they represent can be used for other purposes. 10. Silver represented can be kept in the government treasury while paper money is circulated in its place.

These ten advantages of paper currency as stated by a Board of Revenue Vice-president of the Ming dynasty are criticised by Wang Liu of Soochow in 1831. He says that in regard to the ninth advantage it is defective, because copper cash continue in circulation along with cash notes, and ought to do so. To melt them is a crime.

The difficulties of maintaining official control over cash and cash notes are: 1. That copper cash are melted by coppersmiths. 2. Lead cash are made and circulated. 3. Foreign coins are introduced into the circulation. 4. The price of silver is in the hands of traders. 5. The issuers of the notes are private traders. On these five grounds Wang Liu recommended the government to issue the notes. The government, would in his opinion, have the power to abolish the five evils he noticed.

Wang Liu also states that silver ought not to be shut up in the treasury but circulated among the people for use in making various implements. He adds that (1) the great advantage of paper money is that it is unlimited in quantity and differs in this respect from gold, silver, and copper. In saying this he seems to forget that paper is not money at all unless

there is gold, silver, or copper kept as a reserve. The reserve must be sufficient to prevent a disastrous run upon the bank. He praises the currency of the Chin dynasty, which used copper cash along with paper notes and condemns the Yuen dynasty currency, which at one time used only paper money. (2). The next advantage he mentions of treasury notes is that the control of the currency is retained by the government. This increases the esteem in which the government is held. (3). The use of government notes acts as a check on the introduction of foreign money, and China is held by foreigners in higher regard. (4). Treasury notes in sufficient quantity prevent persons inclined to rebellion from pushing their plans. The rebels will return to loyalty if they find that the people are so well-to-do that the offer of bribes to rebel is not accepted. (5). Silver takes the forms of Yuen-pao silver, sycee silver, and dollars. In contrast with this variety, government notes are uniform. This is an advantage. (6). The use of treasury notes allows of the collection of copper which can be made into cash, and the cash thus made are improved in purity. (7). Treasury notes being fixed in value, fraudulent traders cannot raise or lower their price. Here again the native author is mistaken. If he means that the credit of the government is commercially so good that purchasers of notes do not doubt their being valid for the amount stated, he is surely wrong in this. (8). The eighth advantage of government notes is that hoarded silver will be brought out of cellars when it is stored and used to buy notes. The circulation of this silver would certainly relieve the tightness of the market. (9). The ninth advantage of treasury notes will be that they can be made large and small in size. On the large ones the classic of filial piety can be engraved. On the smaller moral sentences from good authors can be engraved. The practice in reading thus promoted will be a real benefit to ignorant people, who will be induced to learn to read. (10). The use of treasury notes will

open the way for the removal of many abuses. These abuses belong to the grain tribute, the Yellow River, and the salt departments. Persons connected with the Likin do not venture to suggest changes or find fault with what is done, fearing the expenditure may not be met. If treasury notes are used the path of improvement will be plain. (11). The author thinks that the use of treasury notes will render appeals for special contributions unnecessary. Here error is caused by the author's belief that unlimited credit is inseparable from a government issue of notes. (12). The twelfth advantage is that taxes being light the government will be regarded as highly benevolent.

FIFTEEN DEFECTS OF PAPER CURRENCY.

The same author marks fifteen defects in the paper currency of the Sung, Chin, Yuen, and Ming dynasties. The abandonment of paper currency as insecure he thinks was because

1. The paper used was too thin and easily torn and otherwise injured.
2. The printing of the notes was rough and indistinct.
3. Statutory penalties and nothing more were stated on the notes.
4. There was not sufficient variety of value inscribed on the notes.
5. The Yuen dynasty notes of A.D. 1260 had values which were too small. They represented from two strings to ten cash.
6. The limit of two strings of 1,000 cash for each of these notes was too low for public convenience.
7. Notes nominally worth two strings cost only three or four cash to make them. They were too thin and the workmanship was not good.
8. Government officers gave out notes but refused to receive them. They made profit by the issue.
9. In changing old notes for new, a charge for stationery expenses was made of thirty cash on a string.
10. In using old notes there was loss on the part of the holder.
11. There were frequent changes in the system of the paper currency. The people on this account distrusted the notes.
12. The minting of new cash was discontinued. The cash in circulation became

daily fewer in number. 13. Silver was used at the same time, mixed with the notes in business transactions. 14. The benefit of profit realized was exclusively with the government. The people did not share in it. 15. Penalties against persons circulating counterfeit notes were announced, but there was no vigorous effort to prevent this evil.

Here follows a Chinese argument on the effect produced on currency by hoarding on the part of those who by so doing withdraw so much money from circulation. The man who hoards, injures his neighbour and also the government. The writer, who a hundred and twenty years ago discussed this question, was named 儲麟趾 Chu Lin-chih.

How the Rich may be induced not to Hoard Cash.

Among the advantages of copper currency are that it is safer to keep it at home in troubled times. Thieves cannot so easily carry it away. Silver is safer than gold for the same reason. Copper cash are a good deal hoarded by the rich. They receive rents in cash. They also receive redemption money for pledged articles in cash. Of the cash received by the rich each year only two- or three-tenths, or at most five- or six-tenths, are paid out by them. When the value of copper cash rises the rich hoard them the more. It would be well, said a memorialist, to require those who hoard to pay taxes in cash or to open cash shops. If they refuse they ought to be punished. The fear of punishment is greater as an inducement on the minds of the rich than the desire to increase wealth. The advantage gained by this policy will be to check the hoarding of cash.

Currency in the Tang Dynasty.

The age of Kau Tsu and Tai Tsung, the first emperors of the Tang dynasty, A.D. 618 to A.D. 650, is a convenient point from which to begin the history of modern Chinese currency.

A poll tax, mixed with land tax, was the chief factor in raising the revenue. The land was divided according to the number in a family, and one-fifth only was conveyed by inheritance. A mow was 240 pu and a k'ing was 100 mow (15.13 acres). When a man was eighteen years of age he had 100 mow of land assigned to him. Twenty were transmitted from father to son (世業 shih ye). The rest were for the family. Sick persons and aged men had forty mow. Widows, wives, and concubines had thirty mow. A man paid in taxes two cwt. of millet, three of rice (that is, 石 five hundred pints). In silk districts two pieces of silk were required of one kind and twenty feet of another, beside three taels raw silk and three catties hemp. Instead of silk he paid fourteen taels of silver in districts where there was no silk. The silk tribute being assumed at eighty feet of woven fabric, one tael of silver was equivalent to five feet. At present one foot buys two and a half taels. According to this shewing silver was worth in industrial fabrics twelve times what it is now. But richer fabrics are made in modern times, and probably it was not more than three times or five or six times what it is now. The woven silk of Shantung costs now one tael a foot. If we take that as a standard by which to judge of the value of silver twelve centuries ago, as stated in the Dynastic History, then silver is now five times cheaper than it was then. The difference is caused by the cheapening of silver through improved machinery in silver mines and on account of its large importation at a low price from abroad.

In hemp districts twenty-four feet of the cloth made were required and three catties of raw hemp.

There was forced labour. Twenty days in a year were required or an equivalent in textile fabrics of three feet per day. In times of war requiring fifteen days' service, tax payers were exempted from the claim for textile fabrics. If twenty days were required, the grain tribute also was not

exacted. No man was required to give labour for more than fifty days.

In Canton province the tax was 120 catties of rice, 一石二斗; second class, eighty catties; third class, sixty catties. Aborigines paid one-half. Traders coming in to live paid ten cash or five. They were excused if poor. In a second year they gave as a tax two goats or one goat. If poor, three persons gave one goat between them.

<i>Measures.</i>	Eight millet seeds are one	fen 分.
	Ten fen are one inch,	寸 t'sun.
	Ten t'sun are one foot,	尺 ch'ih.
	Ten feet are one chang,	丈 chang.
	1,200 seeds are one	籥 yo.
	Two yo are one	合 ho.
	Ten ho are one pint,	升 shêng.
	Ten shêng are one ten,	斗 teu.
	Ten ten are one hu,	斛 or picul.
<i>Weights.</i>	100 seeds are one chu,	銖
	Sixteen chu are one tael,	兩 liang or ounce.
	Sixteen taels are one catty,	斤 chin.

In the 11th century the Sung dynasty had a cloth-measure foot which is found to be 10 inches $\frac{5}{8}$ ths of an English foot. It is engraved in the 金石索, "Chain of Metal and Stone Inscriptions," volume 2, page 76. In the Chou dynasty of the time of Confucius the foot in the same work measures 7 inches $\frac{7}{8}$ ths, or speaking roughly eight inches. The Han dynasty foot for cash manufacture is $9\frac{1}{8}$ th English inches long. The foot at that time, about A.D. 150, was about three-fourths of the length of our English foot. A Han dynasty cash, then, was $\frac{9}{16}$ ths of an English inch in width, nearly. Ten cash were usually made in a frame of a foot in length, and it was the current foot in each dynasty that regulated the width of the copper coin. The iron cash mould was, in some instances,

a foot in length, and contained spaces for ten cash. As a consequence ancient cash thus made were small; the foot being shorter than at present.

The international treaties determine the length of the foot to be 14.1 English inches. This is the tailor's foot. The carpenter's foot is about 12 inches long. The foot of the Board of Works is 12.25 inches, and this is used in measuring land.

Copper cash had been made and used in China since the time of Confucius, but paper currency really dates from the Tang dynasty. The government became settled, and there was a long time of peace. The caliphate at Bagdad was prosperous and foreign trade was encouraged. Trade increased under the caliphs and under the Tang emperors at about the same time. In China this led to an insufficiency of current money. Tightness was followed by the adoption of paper representatives of gold, silver, and copper.

The Currency in the Yuen Dynasty.

The trade with the west during the Yuen dynasty, which lasted from A.D. 1200 to A.D. 1368, increased to a remarkable degree. Silver being very much needed, reached China in large quantities, and luxurious living became the fashion. The common Chinese abacus was introduced in China early in the Ming dynasty. This new form of manual arithmetic, as it may be called, was one of the results of the opening of the country. Its universal adoption in every village of so large a country shows the diligence of the people in prosecuting internal trade, and may be used as an illustration of the effect of the Mongolian conquest in opening up the country while the old counters were still in use. The Tungus tribesmen of the Golden dynasty* did something to promote trade, but not nearly so much as their successors the Mongols, because the

* A.D. 1115 to A.D. 1260.

Mongols also conquered Persia and Russia and possessed the southern provinces of China. Canton, Amoy, Hangchow, and Nanking were open to trade. The consequence was that a very considerable amount of silver came into China from Western countries, and the manufactures and arts of China made decided progress. It was during the Yuen dynasty that the mariner's compass, which the Chinese had in use at the beginning of the twelfth century, was employed on board all large vessels making long voyages. In Europe it is spoken of as made use of by Flavio Gioia, of Amalfi in Southern Italy, at the beginning of 14th century.

The question is an important one, what effect the great development of foreign and native trade had upon the money then in use.

By reference to the Grand Canal and river accounts as stated in the history of the Yuen dynasty* the state of the currency at that time may be illustrated. In A.D. 1326, for example, 30,000 men were paid each day a tael in paper money and one pint of millet. The usual average at the present time is 4-10ths rice, 6-10ths copper money, or 3-fifths rice. The workmen on the Yellow River and Grand Canal, when paid in paper money, one tael would, according to this average, find it only worth to them one hundred cash. If so, then since silver was worth a thousand cash a tael, the paper had depreciated till it was worth in exchange only one-tenth of its nominal value. Such was the consequence of the profuse use of paper money. This evil was, under the Ming sovereigns, after making trial of paper money for some years, corrected by the financiers of the time. They had followed the Yuen system too long. Advantage was taken of the silver which had come from abroad during the Yuen dynasty to return to special payments and a new currency era was commenced. Silver rose to its rightful position as the most suitable money

* 元史志卷十六河間河。

when copper by its increased quantity became too bulky for convenience.

Another fact should be weighed here. The gold and silver which the Mongol emperors possessed was lavishly distributed in gifts to members of the imperial family, to successful soldiers, and to civil officers for useful service. In the year A.D. 1334 on one occasion, after a victory, a guardsman received gold 400 taels, silver 900 taels. His followers each received gold 200 taels, silver 700 taels. Ninety-six men received in all gold 2,400 taels, silver 5,600 taels; gold waist bands, ninety-one; beside 1,300 pieces of silk.* The princes engaged each had 100 taels of gold, 500 taels of silver, one gold sash, and eighteen pieces of gold embroidery. This system continued for nearly a century. Paper money was given to the victims of drought and flood. The gold and silver reserve which alone could keep up the value of the notes, was ignorantly scattered with free hand. They should rather have kept it as a fund with which to quell rebellion. By such a policy the Mongols might have continued to rule China as long as the Manchus in recent times.

In the Yuen dynasty, on account of the great success of the army, copper money was despised and paper took its place. A minister replied to Kublai's question regarding copper money, whether it should be used or not, "Your majesty rose to power in the cold region of the north. Paper money belongs to the dark element. China belongs to the light element, to which copper money is the more suitable. If your majesty use paper money your descendants will enjoy tranquillity." Kublai followed this advice. His grandson had copper cash made for a short time as an experiment, but for the remainder of that dynasty, during another fifty years, paper money was in general use.

* Yuen History, 35, 11.

In the year 1276, when Kublai had been thirteen years emperor, South China was conquered by his army. The shoe of silver weighing fifty taels is called Yang-chou-yuen-pau, and it dates from this time. Large quantities of silver in small pieces were melted into shoes at Yang-chou, where the army encamped after the conquest. The general ordered a search for silver in the soldiers' baggage. The silver thus procured was presented to Kublai in shoes of the size mentioned. The Mongol emperors thought themselves far richer than they were. They gave freely because they had a paper currency. The loss of the silver, given away so lavishly, reduced the value of paper money too rapidly for the dynasty to retain the confidence of the trading population. A government is strong as long as the currency is trusted. X

The same passage in the Chui-keng-lu says the new silver shoes were many of them changed for articles of traffic and found their way into commerce. The next year Kublai had more Yuen-paus made, weighing forty-nine taels. In the year A.D. 1278 shoes were made weighing forty-eight taels. In A.D. 1286 and 1287, after the conquest of the Liao-tung province, the silver obtained was used in this way. This is stated in the Chui-keng-lu, chapter 30.

Military successes rendered the government careless, and gave the Mongol sovereigns so much confidence in their future that economy was not practised, and a large depreciation of the paper currency was the result, paving the way for the downfall of the dynasty. X

This want of economy was encouraged by the belief which Confucian flatterers of the Mongolian emperors impressed on them that heaven's decree made them universal sovereigns. Indeed the Confucianist statesmen of that time were convinced of it as a truth; the Mongol armies being invincible in their opinion. Kublai, without leaving Peking, conquered China, Birma, and Manchuria. Genghis Khan left him these +

conquests to make, and he made them with the greatest ease. It was at this time that Kublai's treasurers recommended him to use notes for copper cash. The copper cash notes were of the values 2,000 cash, 1,000 cash, 500, 300, 200, 100, 50, 30, 20, 10, and 5 cash; so says the Chui-keng-lu, chapter 26, page 11. Such was the faith of the multitude in the strength of the government that notes of all these values were printed at the government presses, accepted by the people, and passed in the markets. But those who received these cash notes would soon find that the cash which the notes represented were difficult to obtain. The government ceased to coin copper cash. The consequent depreciation of the notes was very rapid.

The Currency during the Ming Dynasty.

When the Chinese drove out the Mongols, and Chu T'ai-tsu mounted the throne as first emperor of the Ming dynasty, A.D. 1368, the taxes were rearranged and an edict was issued that one-twentieth of the land should be planted with the mulberry, or with hemp or cotton. Eight taels of silver would be levied on one mow of hemp, four taels on one mow of cotton. The tax on mulberry tree land would not be levied till four years after the first planting. If mulberry trees were not planted, one piece of silk would be claimed; if cotton or hemp were not sown, one piece of cotton or hemp-made cloth would be claimed. This was the beginning of these taxes, and it was the date when silver currency, properly speaking, commenced in China.

In the King-shi-wen-sü-pien, chapter 24, Feng Kwei-fen says the use of silver was not allowed till the middle of the Ming dynasty. Ku Yen-wu says the object of the prohibition was to check the advance of a new currency and favour the circulation of paper notes. Silver has its own value while paper has not. The popularity of silver was therefore inevitable. This accounts for the prohibitory edict.

The introduction of silver was the effect of foreign trade. The government at first opposed it because it caused a decline in the circulating value of paper notes, but trade proved too strong for the government successfully to resist the use of silver.

In the year A.D. 1376 there was an edict directing that in payment of taxes one tael silver should count as 1,000 cash in copper and as ten strings (*kwan*) in copper cash notes. Either of these three modes of payment would be accepted by the tax collector as an equivalent for one picul, which was then as now 100 catties, or Chinese pounds, of rice.* For wheat the amount was less by one-fifth. One piece of cotton or grass cloth was valued at $\frac{6}{10}$ ths of a picul of rice and $\frac{7}{10}$ ths of a picul of wheat. Coarse hemp cloth was rated at $\frac{4}{10}$ ths of a picul of rice and half a picul of wheat. In a large part of China millet is the food of the people, and in those parts they could pay taxes in millet. Eight years later it was ordered that in Yunnan, gold, silver, cowrie shells, varnish, cinnabar, and quicksilver should each be allowed to form part of the autumn tax payment. The tribute of rice was the regular tribute, 本色 *pên-sê*, and all substitutes for it, whether precious metal or any articles of value were substitutionary tribute, 折色 *ché sêh*.

The *ting* 錠, of the value of five taels, in the form of paper notes, corresponds to the fifty-tael notes of the Yuen dynasty. The early Ming emperors retained the system of government notes as currency. They were one-tenth of their former value. In Kublai's time paper notes, known as *ting*, were of the nominal value of fifty taels of silver. They counted as five taels in the time of the first Ming emperor. In A.D. 1397† the Board of Revenue proposed that one picul of rice should be represented by one *ting* of notes. One tael of gold was the representative of ten piculs. One tael of silver was the representative of two piculs. One piece of thin silk was equivalent

* Ming History, 78, 2.

† Ditto, 78, 2.

to $1\frac{1}{2}$ th piculs. One piece of cotton cloth was worth one picul. One piece of grass cloth was of the value of seventy catties of rice. One catty of raw cotton was worth twenty catties of rice. The emperor said that this scale would be too hard on the poor people. The amount of rice was doubled. They need pay only 2,500 cash in notes instead of one picul of rice. In other respects he accepted the proposal of the Board.

Gold was in the latter part of the 14th century only five times the price of silver, and an ounce of silver in the markets would buy three times as much rice as at the present time.*

Under the Emperor Yung Lo, Cochin China was added to the empire. The aborigines of Hainan and the mountains of Canton were ordered to pay the same taxes as the Chinese. Thirty million piculs of grain and twenty million taels value of silver, in pieces of silk and notes, are mentioned at this time as the revenue in kind of the whole empire. It was a time of good harvests and general prosperity. But although the government laid up annually in the treasuries 300,000 taels of silver they would not allow this metal to be used in commerce by the people.

In the year 1436 a great change was inaugurated by sending the tribute of certain provinces in the form of silver to Peking. After much discussion, it was decided that four hundred weight of tribute rice or wheat should be represented by a tael of silver. The four million piculs due from the provinces Chekiang, Kiangsi, Hukuang, Fukien, Canton, and Kuangsi, were equivalent to one million taels. This silver was named Gold Flower Silver,† 金花銀. The soldiers received their grain, and it became a common thing to take silver at the rate here mentioned, instead of tribute grain to forward to Peking. This was about sixty years before European ships

* Ming-shi, chapter 78, page 3.

† See under Price of Rice.

appeared at Canton. To this store of silver which entered the currency in the early part of the fifteenth century, would be added in the sixteenth century the silver brought by foreign trade. It was during the Hung Chih period, 1488 to 1506; that European ships first arrived at Canton.

When the land taxes are too heavy the country people leave their land and seek another home. This happened with the people of Soochow, Changchow, Huchow, and Kiahing. The Kwangsi treasurer, Chow Kan-siün, stated this to the Emperor Siuen Tsung in A.D. 1426. He said that he had asked the old people why the farmers left their lands. They all said the heavy land tax was the cause. The contribution was, about A.D. 1426, the twentieth part of a picul, at Kwun-shan near Soochow.* If rented, the tenant paid for each mow of land a picul of rice to the owner. Later it was sometimes confiscated, and the officers still claimed one picul for each mow. If it be supposed that this was eight-tenths of the yield, it would be too heavy a burden for the tenant. If the government took the whole of the yield the tenant could only seek another home. The same official critic of taxes adds that about A.D. 1412 there was an inroad of sea water in Chekiang which devastated 90,000 mow of land. Still the old tax was expected from the land over which there had been this destructive inundation.

Soochow land is the most fertile in China. It yields, for example, at present 420 catties of rice in the most productive parts. Some land in Chekiang yields two hundred or three hundred catties. There is not likely to be any difference in the quantity of rice produced in A.D. 1426 and now. At least this amount is mentioned in the Ming History (ch. 78, p. 3). I learn that 320 catties may be expected on a mow of good land in Kiahing at present. This amount does not greatly differ from the amount said to have been produced 450 years ago. The price

* Ming-shih, 78, 3

was, in July 1897, Taels 2.2.0. At that time it was Taels 0.2.5 for 100 catties. Silver is eight times as cheap as then if stated in the market price of rice. Silver, if exchanged with copper, was then cheaper by one-fourth than it is now. Then 1,000 copper cash were equivalent to a tael of silver. Now 1,240 cash (July, 1897) are exchanged for a tael. Judging by these facts silver is still too dear by 20% or more, when compared with its relation to copper 450 years ago.

There was certainly a large amount of silver in the possession of the government early in the sixteenth century. It was greatly increased by the Mongol capture of cities. Private hoards of silver came into circulation at that time. For instance the Ch'ien-ch'ing-kung, formerly called the 乾明宮, one of the chief palace buildings, cost twenty million taels of silver to build it. Three thousand workmen were employed. In a year thirteen thousand piculs of rice or millet were paid in wages (Ming-shih 78, 12). The name is now 乾清宮.

In the year 1380 the first Ming emperor directed the Board of Revenue to make a reduction in the tax on each mow of land of one-fifth. Seventy-five catties as far as to forty-four catties were thus reduced. Forty-three to thirty-six catties were reduced to thirty-five. The autumn yield of Soochow prefecture is stated at 2,746,000 piculs. In A.D. 1675 a picul of rice was valued at Taels 1.5.0 of silver. * In A.D. 1524 a picul of rice was estimated at Taels 0.2.5. In A.D. 1575 the same was Taels 0.7.5. In A.D. 1666 the same was Taels 2.0.0. It was in July, 1897, Taels 2.5.0 nearly for 100 catties. In the year 1666, while two taels was fixed as the amount to be paid instead of the rice it represented, it is remarked that in fact unshelled rice at that time was worth seven or eight-tenths of a tael in the market. If the emperor had insisted on silver the country farmer would have been obliged to sell nearly two and a half piculs to procure that amount of silver. The emperor directed that rice should be received.

* Soochow foo-chi, 12, 25.

In the year 1400 the second Ming emperor kindly ordered that in no case should more than one tow per ^{mu} be levied on the farmer. His successor, Yung Lo, or Ch'eng Tzu, changed this rate and made the taxation heavy. The Ming emperors in levying the taxes were very exacting, interpreting according to the letter. But the consequence was that only half of the amount or six parts in ten was actually sent to Peking. There was an inspection by the Board of Revenue. Seventenths of the amount due by the regulations was held to be a very good return.

The present dynasty has changed this system, but it is impossible to secure uniformity in the levy of taxes, on account of the uncertainty of harvests caused by drought and flood. In the Ming dynasty during the 15th century we read of one tael of silver being sent to Peking in place of a picul of rice, and in bad years seven mace, because the farmer would then be unable to offer so much grain to the tax gatherer. Soon seven mace became the rule (Ming-shih, 79, 4). The Soochow contribution changed for silver at the rate of one tael was 500,000 piculs in A. D. 1492.

When the use of bank notes was drawing to an end, great efforts were made to preserve worn notes in a special treasury. In A. D. 1425 or thereabouts this ceased to be done. In the Yung Lo period there was a treasury for receiving worn notes in every city, A. D. 1403 to 1425, and in the time of Hung Wu, 1368 to 1399, new ones were given for the old notes. In the year A. D. 1436 it is said that gold and silver were not received for grain; but at iron foundries they were gladly accepted by the tax gatherer (Ming History 79, 10, 6). At the foundries gold and silver came to the iron masters from buyers of iron articles. It is easy to see here that what the people really liked best was metallic currency. The government forced the paper currency upon them against their wishes. It is said by the historian that if gold and silver came in instead of land



and grain taxes in kind they were sent to Nanking to be used in paying salaries to military officers.

In A.D. 1436 it was ordered that 1,000,000 piculs of grain should be paid for in silver and sent to Peking in that form. It would be, that is to say, Taels 1,000,000. About A.D. 1506 the eunuchs in charge of the silver treasury sent in a memorial stating that the palace expenses were great, and that it would be well to give out silver. The Board of Revenue offered resistance, but they could not check the influence of the eunuchs. The treasury store of silver had been, A.D. 1522, eight million taels. This sank soon through palace expenditure to a million and a quarter. This was the condition of the silver question in Peking just at the time when Europeans had begun to trade with China for silk, rhubarb, and porcelain, paying in silver or in Western goods at Canton and other ports.

In the year 1558 it was ordered that one million taels of silver should be given over for the use of the palace in addition to the emperor's special expenditure. This was the result of the influence of the eunuchs at the time. In addition there were 400,000 taels, the confiscated property of delinquent officials and penalties for offences against customs' regulations. The eunuchs grew bold. They would send despatches to the Board of Revenue for silver, and they did not take the trouble to say for what purpose or what amount of silver was required. This is stated in the history about 1567. To this the Board objected. They petitioned the emperor to check the eunuchs, but without success.

Shen Tsung came to the throne A.D. 1573. In his eighth year (Wan-li eight) the treasury was yearly receiving Taels 4,500,000 of silver. Ming History, 79, 10. This was taels 200,000 beyond the amount recognized as suitable in A.D. 1436. Soon after Taels 70,000 were added for feed of horses and for the treasuries of the Board of Revenue, that of the Imperial Banqueting Court and of the Imperial stud, which were nearly empty.

The Board of Works had a treasury for the produce of silver mines. The president of the Board paid workmen with this silver. The emperor rebuked him and ordered him to replace the amount so used by other silver. From this time all the silver of this treasury was applied to palace expenditure. The eunuchs at this time were court favourites. They were of low origin and without Confucian education. Their cleverness pleased the emperors and aided them in many ways. There was always a feud between them and the Confucianist class. They cast covetous looks on the silver that was now fast being aided through foreign trade and the working of mines to the stores accumulated by the Mongols in their wars.

The salt administration in the Ming dynasty is connected closely with the history of the currency. According to the method pursued at the close of the fourteenth century salt farmers manufactured salt within fixed territorial limits. Each salt certificate, or yin, represented 200 catties, and this was equivalent to one hundred catties of rice. It is singular that at present, November, 1900, thirty-eight copper cash will buy one catty of rice. In July, 1897, the price was twenty-five cash. In some places twenty-five cash will buy half a catty of salt, but salt is usually much cheaper than this. Thus at Canton salt and rice are nearly equal in price, because Canton is on the sea where salt is cheaply manufactured, whereas on the river at Hankow and beyond it in fresh-water districts the people suffer from a too heavy taxation of an article so necessary as common salt. I am told that at Nanking the price of rice and of salt is much the same per catty. Beyond this up the river westward, the expense of conveyance adds to the price of salt.

A certificate, 肆 yin, means 675 catties (Giles), and at Tientsin one large bag of salt carried by four, weighs 640 catties; such bags are made of rush mat. In A.D. 1436 the Kiang-su salt was sold so far away as Kwei-chow. But a few years later, 1465, the salt of Pakhoi, on the Canton coast, was carried

to the cities of Hunan. At the same time the Kiang-si cities near Canton province, made use of Canton salt.

In the period A.D. 1621 to 1628 ten-cash pieces were made in Peking; each weighed one tael. One thousand copper cash weighed 100 ounces or taels. The use of ten-cash pieces was regarded as a help in counting, and therefore a convenience to the people in all small transactions.

The use of money notes made of paper really began in the reign of Hien Tsung, about A.D. 820. It was not till the Sung dynasty that the notes called chiao-tsz 交子 began to be used in Szchwen. The aim was to relieve the people at a time when iron cash, a very heavy kind of money, were in use. About A.D. 1130 the notes called hui-tsz 會子 came into use in the southern empire, when Hangchow was the capital. From that time the use of paper notes continued in the northern empire, then known as the Golden Dynasty, and subsequently under the Mongols, who conquered China about A.D. 1260 and retained it for about a century.

Currency in the Present Dynasty.

The Manchu emperors adopted the currency of the Ming dynasty. During two centuries and a half they have continued to use silver by weight and copper in the form of cash. The chief features of the currency in the present dynasty will be found described in subsequent chapters on Chinese revenue and taxation.

In Peking large cash called Tang-shih-ch'ien 當十錢 began to be made in the reign of Hien Feng. They have continued in use ever since. A large portion of them are counterfeit. They are not in use more than a few miles outside the metropolis.

Fall of Silver.

The fall of silver in Europe and most parts of the world did not seriously affect its value in copper cash in China. The following quotations from printed market values shew that this is the case :—

In 1895, 1896, 1897 the values of the Mexican dollar, as stated in copper cash at Shanghai, were as now given. In Chinese daily newspapers the heading 衣牌 *i-p'ai*, price in clothing establishments, is the price of the Mexican dollar for the day.

1895, February 23, 930 ; April 23, 1,040 ; May 14, 1,030 ; September 1, 1,000 ; December 15, 970. Between July and December in that year the tael of silver fell from 3/ to 2/11.

1896, August 23, 940 ; September 14, 940 ; September 28, 930 ; October 27, 920 ; November 11, 920 ; December 7, 910.

1897, January 8, 900 ; February 27, 910 ; March 23, 920 ; April 19, 930 ; April 28, 930 ; May 24, 940 ; June, 20, 950 ; July 2, 940 ; July 30, 950 ; September 1, 960 , September 8, 950 ; September 21, 940 ; September 28, 930 ; October 12, 920 ; November 22, 910, February 1, 900 ; February 15, 900 ; February 26, 910 ; March 14, 910 ; May 20, 950 ; June 16, 940.

In these years great changes took place in the relative value of gold and silver, especially through the adoption of gold currency by Japan. Yet the Mexican dollar kept its value as stated in copper cash through these years. It was 930 cash in February, 1895; 900 cash in February, 1897; 920 cash in April, 1898; 920 cash on October 14; 920 cash on November 29 ; 910 cash on April 13, 1900.

Fixed Ratio in India.—British India is using silver at twenty-two to one. *London and China Express*, December 31, 1897. The same Journal states that in Netherlands India silver is current money at fifteen and a half to one. Borneo, Siam, Malaysia, and China are on a silver basis, and if Singapore adopts a gold basis the trade with Siam will be lost to her.

The values of the Mexican dollar at Shanghai in the years 1898, 1899 were : January 2, 910 ; January 13, 900 ; February 1, 900 ; February 15, 900 ; February 26, 910 ; March 14, 910 ;

April 6, 920; April 22, 920; April 25, 930; May 23, 940; May 28, 950; June 16, 940; June 25, 930; July 30, 920; August 22, 910; October 14, 910; November 4, 920; November 26, 920.

In November, 1898, the Kiukiang price of a Mexican dollar was 890 cash. It was then worth thirty cash less than at Shanghai. If dollars were brought from Kiukiang to Shanghai, there would be a gain of three per cent if sold for cash. The reverse is also true. If cash were surreptitiously conveyed in steamers from Shanghai to Kiukiang they would purchase three per cent more Mexicans there than at Shanghai. It is to the advantage of unprincipled persons to smuggle dollars from Kinkiang to Shanghai and to smuggle copper cash from Shanghai to Kiukiang.

In the year 1899 on January 4 the Mexican dollar at Shanghai changed at 930 cash; on January 5 it was 920. It continued at 920 till the 19th, when it fell to 910 and remained so till April 10th. On April 18th it was still 910, but on April 19 it was 920, and in May, 1899, it rose to 930 cash. On September 16 it was 940, and the tael of silver changed for 1,220 to 1,230 cash. Gold 36.3 taels. In August gold was between thirty-five and thirty-six times the price of silver. On December 28, 1899, the Mexican was 920 cash. The tael was 115 to 1,160 cash, gold 36.9.

Price of silver at Newchwang (September 16, 1899, *Shen-pao*). One tael 8,310 Eastern cash. The dollar changes for 5,700 cash in the Eastern currency. In this currency one thousand is 330, and 5,700 is the equivalent of 1,881 common cash.

Chinkiang, Chung-wai, January 10, 1900. Dragon ten-cent pieces, eighty cash. The cash shop men say they are lighter by about three taels in each hundred dollars. Probably the workmen who coin these ten-cent pieces are not to be trusted.

The fixed ratio required between metals used as money may be that between gold and silver or that between silver and copper. Such a fixed ratio may be attainable or not. Whenever it is attainable the advantage to commerce is great.

China supplies facts on this complex question which are of importance. At the end of the year 1897 the Mexican dollar had been changed for 910 cash for about six weeks. Previous to this it had been 920 for about the same time. These numbers may be compared with those of previous years. On February 17, 1894, the dollar was worth 1,020 cash; on May 7, 1895, it was 1,040; on March 4th, 1896, it fell to 960; on July 15th it fell to 930 and continued at that value to October 27, when it fell to 920. On December 7, 1896, it fell to 910. That was still the ratio, October 14, 1898. The ratio remained the same during twenty-two months. In November, 1898, the Mexican rose to 920. In 1898 it was uniformly worth 910 cash down to April 13.

The real value of silver two centuries ago was about one hundred times the price of copper, and it was one-tenth of the value of the same weight of gold. Silver then is kept up in value by its use as money. In January, 1898, it was still 15 % above its real value. A Chinese 兩 liang of silver = $\frac{1}{12}$ th of an English pound weight, Troy, is worth 1,100 cash. A Chinese liang of gold is worth about 43,000 cash. In old times it would buy 10,000 cash only. It is the use of gold as money that causes it to realize so high a price. Should a time come when legislation ceases to favour gold or gives equal favour to gold and silver, it may be expected that gold will sink to twenty, fifteen, and ultimately to ten times the value of silver. That will be the result if the metals resume their old relation. In the Tang dynasty, A. D. 618 to 905, silver was, as currency, a hundred times the value of copper, while gold was a thousand times that value.

In the *Sin-wen-pao* of October 14th, 1898, the price of cash is stated to have fallen at Hankow, because silver was in demand. Copper cash fell to seven mace five candareens, a much cheaper rate than has been known for several years. Many cash firms have lately closed business. After the recent fire only a few held their ground. They were afraid to issue notes, on account of the disasters in neighbour firms. Consequently they needed to give out silver, which at present is not sufficient in quantity to meet the demands of the market. The price of silver therefore rose and the value of cash fell.

In the *Shen-pao* of October 24th, 1898, a letter from Peking states that silver was falling in value. Sung-kiang *yin*, the silver of Shanghai, was worth per tael, 10,400 large cash; Mexicans, 7,600.

At Hankow, after the great fire in October, the value of silver per tael (98) was 1,370 cash. This is an increase of 100 on ordinary prices, and it is a cheering circumstance to all the poorer population.

In the *Shen-pao* of March 30th, 1899, at Tientsin a dollar changed for 768 ordinary cash, that is, 1,536 Tientsin cash. The cash known as 九六 cash were counted as 2,260 to the tael. About 15 % were counterfeit cash.

In the *Shen-pao* of September 10th, 1899, the dollar changed for 930 cash at Shanghai; silver was 2s. 7 $\frac{7}{8}$ d.; gold was 36.6 times the value of silver. One tael of silver was changed for 1,210 to 1,220 cash. A Mexican dollar was worth in silver 7 mace 0.5 candareens.

In the *Sin-wen*, December 30th, 1899, dollar, 920 cash; Tael, 1,170 to 1,160; Mexican Taels, 0.74.5; gold, 36.1 to 36.8. In the *Chung-wai-pao* of January 10th, 1900, dollar, 910 cash; Tael, 1,150 to 1,160; Mexican silver value 73 tael cents .8875; Gold, 35.7 to 36.5; Tael of silver, 2s. 8 $\frac{3}{4}$ d. In the *Sin-wen-pao* of October 9th, 1900, the dollar is worth 940 cash; Tael, 1,250 to 1,240. The Mexican is 'Taels 0.9.3.1; Gold, 33.7 to 34.2.

Silver during the time when the Boxers were in the pay of the government, has risen in price through the demand caused by the flight of Peking and Tientsin officials. This is the cause of a rise in the copper cash price of a tael of silver from 1,150 to 1,250.

Japanese Finance.—When the gold standard was adopted in 1897 it was feared that the amount of silver *yen* presented for payment would be too great, and that the gold held by the treasury would not be sufficient to meet demands. In fact only eighteen million *yen* were presented from abroad and thirty-four million in Japan. Total, fifty-two millions. Of this amount 27,600,000 were used for subsidiary coins and 47,000,000 were sold at Hongkong, Shanghai, Singapore and elsewhere. The loss incurred was 5,700,000 *yen*, but there was a profit on the subsidiary coinage of 5,790,000 *yen*, and the net result was a gain of 90,000 *yen*. The period 1867 to 1871 was the period of currency confusion. The mint was established at Osaka, and silver monometallism was adopted. In 1870 Marquis Ito advised the adoption of a gold standard. A paper currency was issued nominally redeemable in gold. The paper fell to a discount of eighty or ninety per cent in 1881. This was the period of inflated currency. The period from 1881 to 1885 was marked by financial adjustment. The interval from 1886 to 1897 was the period of preparation for the gold standard.

PART II.—COPPER.

Sources of the Copper used in Chinese Currency.

Copper is now obtained in Yünnan, and the mints under the direction of the treasurers of provinces are supplied with metal for the manufacture of current cash from that distant locality. When the metal sent to the mints is insufficient Japanese copper is purchased. Yet China in several provinces has abandoned copper mines. In the Tang dynasty this metal was worked in Hunan. In the year A.D. 808 no fewer than 280 deserted mines were found near Yuen-chou in that province.

In the Sung dynasty, when Yünnan was still a foreign country, copper was worked for the currency in Fukien (Kiangsi), and Anhui. These provinces supplied 1,340,000 strings in a year. Hunan and Kuangsi gave 1,560,000 strings in a year. There was a fixed number required from each copper mine. This went on till at Jao-chou in Kiangsi, one string cost nearly two strings and a half to produce it.* Then a rebellion occurring stopped the working of the mine altogether.

In A.D. 806 the amount of copper annually obtained from Chinese mines was catties 266,000. At that time the copper produced in a year from mines was 750 times more than the silver then produced. At the same time the iron produced was catties 2,070,000. Of tin there were catties 50,000. Copper was 655,000 catties and of lead 114,000 catties. Of tin the produce was 7,000 catties and of iron 532,000 catties. The reason that these particulars are given in the history is that taxes were levied on mines by the Tang dynasty Emperors.

For more details on the copper mines worked in the Sung dynasty Ma-twan-liu may be consulted. Chap. 9.

* T'ang-shu, Chapter 54, page 5.

In the year 1727 the governor of Canton stated in a memorial that there were large heaps of copper sand at Fau-tung (alum cave) beside a river. It was in the district of Chükiang, in the prefecture of Shao-chou. The heaps were four or five feet high, and some were seven or eight feet or as much as ten feet. They were about 1,000 in number. Each picul of copper sand would yield three or four catties of copper. It would require a year or two to complete the reduction to copper of these heaps. It seems best to allow traders to advance their own capital and reduce this sand to copper on account of the government. Two weiyuens will watch the work to see that all the copper produced is reported faithfully. The military will have orders to inspect the workmen and see that private individuals do not smelt on their own account. The workmen engaged will be all residents who can go back to agriculture when the work is done and cause no trouble. We avoid, he adds, using public money in smelting. Mining is forbidden, but this is not mining. No mine is opened here in any mountain. The copper obtained will be all placed to government account and sent where government directs. *Chu-pi*, ch. 13, p. 61.

In the *Tung-hua-lu*, 25, 38, under the year 1769, ministers advised the Emperor to order that no more Japanese copper should be bought for the use of the mint. The import then amounted to 980,000 catties. The annual production in Yünnan amounted to 13,000,000 catties. The amount annually required was 12,000,000 catties. We are also told in page 38 that the newly-issued coins were used in paying troops and that Chekiang new cash were partly made of Japanese and partly of Yünnan copper.

Copper in Yunnan, Shensi, Hupei.

After the war with France Tang Chiung was appointed manager of mines in Yünnan. In a memorial written after his arrival he describes his interviews with the viceroy, the

treasnrer, and the gentry to make inquiries on the state of mine production and the works generally. He learned that the seventh consignment had been forwarded to Peking. The copper sent forming the second portion of the seventh consignment, consisted of catties 500,000. It was a question still undecided if it would be possible to send away to Peking the eighth consignment in the ensuing winter, that is, the first portion of it. Down to about 1850 there were thirty mines in working order. The wars that followed put a stop to Yünnan mining, which had been yielding annually 400,000 catties of copper. He mentions 會理 Hwei-li in Southern Szchwen and 曲靖 Chü-ching and 昭通 Chao-tung in the same province as localities containing copper which has not yet been worked. The expense of commencing a copper mine is stated at more than Taels 100,000 and from that amount to Taels 200,000. When once worked to profit the mines yield copper for several decades of years. The writer of this memorial found that the copper mine company in 1887, when he was appointed to his office, had a capital of Taels 70,000 only, while the government advanced Taels 110,000 to Taels 120,000. The number of miners is 70,000 or 80,000 at a large mine and at a small mine from 10,000 to 20,000. In the whole province of Yünnan there were several hundred thousand miners. This was the case formerly when disorderly persons gathered from many provinces to seek a living. Now the number is few.

M. Emile Rocher says in his work on the Chinese Province of Yünnan that workmen at the copper mines receive from one to one and a half and two taels a month. In 1880 these sums amounted to $14\frac{1}{2}$ francs, $7\frac{1}{2}$ francs, and 10 francs a month, according to M. Rocher's calculation. As these amounts would at present be not more than 3/., 4/5, 6/., a month, miners' wages must now be increased, because each tael yields twelve hundred cash or less. The rates must be

one-half greater if strikes are to be prevented. The copper mines in Yünnan are the largest and deepest of all the mines in that province, and this accounts for the large number of workmen.

The mining company secures funds by canvassing at Haukow, Shanghai, Canton, and other places of large trade. The canvasser is a Weiyuen, a sub-prefect in rank and representing the exchange bank known as 天順祥 Tien-shun-siang. The interest is 6 % and the additional profits are divided after three years. The capital can be withdrawn after three years at the option of the shareholder. Dividends are paid out by the exchange bank here named. Other capitalists are also permitted to work mines in Yünnan. Yünnan is a poor province, except in regard to its copper and the poppy. The arrival of capital is therefore encouraged by the governing authorities. When undertaking his duties the chief manager, Tang Kiung, believed that it would be best to employ two Japanese mining overseers of experience who would examine the existing mines and form a judgment as to what machinery would be most suitable. He had this opinion of their ability to give aid in Chinese mining, because they follow the Western method. These particulars are taken from his despatch of ten years ago as found in the work Ching-shih-wen-hsü-pien, 經世文續編.

The copper of Yünnan, after about A.D. 1740, was produced at least to the amount of six or seven million catties and sometimes to as much as twelve and thirteen million catties each year. The Emperor was advised to order the treasurers of Kiangsu and Chekiang to buy foreign copper for their mints, the yield from Yünnan being liable to fall short during some years. Yünnan should supply Peking in the first place and then Wuchang. Farther, it was urged that Chekiang and Kiangsu should send their surplus copper to Peking in case Yünnan copper was insufficient for the metro-

politan mints. In 1753 the Yünnan furnaces were much more active. At Tung-chwen there were fifty furnaces making cash. The amount made was 220,000. After paying wages there was a profit of Taels 43,000. In nine years the total profit was Taels 400,000. Yünnan from this time made cash for circulation in the province. In 1765 Ta-li-fu also made cash. The eight provinces—Kiangnan, Chekiang, Fukien, Shen-si, Hupei, Kwangtung, Kwangsi, Kweichou—all bought copper from Yünnan. After this Shensi was allowed to open copper mines at Ningkiang. In two months they obtained 2,400 catties of copper. Sand containing copper would yield beside this amount 5,000 or 6,000 catties more. Ningkiang is a district city of the prefecture of Hanchung-fu, and is in the southwestern corner of Shensi province. It is on the high road from Peking and from Hanchung-fu to Ch'engt'u, the capital of Szchwen. Here copper was profitably worked 130 years ago in sand, and when mined far below the surface. The other localities where copper was then found were in Hupei, very near the point where Szchwen, Hupei, and Hunan meet. The names of two districts—宣恩 Sinen-en and 咸豐 Hien-feng—are given, and it is stated that 15,000 catties had been recently obtained there. The price at which copper was bought from foreign countries was $17\frac{1}{2}$ taels a picul, and it was used in Fukien, Chekiang, Hupei, Kiangsi, and Kiangnan. At the same time the price of copper in Yünnan was eleven taels. The cost of conveyance increased the price to sixteen or seventeen taels, so that it was nearly the same thing as to expense if foreign copper were used. It was felt to be very convenient that it was possible to buy foreign copper, which would be that of Japan, because before the new copper mines were opened, of which the memorial speaks, it was only in Yünnan that copper was produced. About the time that trade with Japan was allowed, Yünnan began to buy her copper at the market price in the official shops, to which it was brought by the

miners. When this was done Yünnan ceased to send copper to distant provinces. Foreign copper was in demand on this account through the empire for household implements and for the manufacture of cash. The result was that copper became as dear in Yünnan as elsewhere, and as in buying copper, silver was paid for it, this metal entered into the markets of Yünnan as currency in return for its copper. The people acquired new wealth, while the government lost the opportunity to obtain cheap copper.

Appreciation of Copper in the Eighth Century.

In A.D. 793 there is mention made of a very active manufacture of copper utensils, images, and the like; six catties or six catties and a quarter of copper made a string of 1,000 cash.* Dishonest traders for the sake of profit melted the cash, because they could obtain 600 cash for a catty of copper. At the time in Kiangsu, north and south of the Yangtsz, a great scarcity of cash was the result, and an old edict to forbid the use of copper, except for making cash, was again put in force.

During the first century of the Tang dynasty rule the Sui dynasty coins called Wu-chn-ch'ien, weighing about three mace, and nearly † the size of three ordinary cash, were discarded. Instead of them cash were made $\frac{8}{16}$ ths of an inch wide and weighing $\frac{2}{16}$ ths of a tael and $\frac{4}{16}$ ths of a sixteenth. Ten of these weighed a tael, and the cash thus passed into the decimal system, according to which 100 taels of copper in the form of a string of 1,000 cash, are equivalent to one tael of silver and one mace of gold. There were mints in Honan, Chili, and Ch'eng-tu. Illegal coinage was punished with death to the coiner and his family.

* Ch'ien-tang-shu, 48, 7, 24 and 48, 12, 23.

† The 銖 chu was $\frac{1}{16}$ th of a tael. It came into use in the Han dynasty. In the Tang dynasty the five chu cash 五銖錢 were still current for a few years.

The exactness of the relation between copper, silver, and gold is worthy of notice here. The coins were well adapted for market use, and the calculations required in buying and selling were easy and simple. But copper cash will appreciate and depreciate whatever the mint authorities may do to prevent it, if only their quantity be less than or are beyond the demand. Prices rise if there is a deficient harvest, and the relation of coinage to food and clothing becomes at once seriously affected. The Arab conquest of Persia was followed by an active trade in the south-eastern provinces of China. The import of silver thus caused, brought a living energy into commerce in all parts of the interior of the empire. There was an impetus given to the trade in silk, medicines, and precious stones. The strain on the new copper coins was great, and they rapidly appreciated. It is in this way that the temporary increase in the price of copper may be accounted for. It should be remembered that the fact of increased price in copper is mentioned just two centuries after the rise of Mahommedan power.

How much foreign trade has to do with the occasional rise and fall in currency values may be judged by remarks in the Tang-shu.* “Under Tang Ming Huang early in the 8th century seventy-three mints made cash amounting to a million a year. Later there were only ten or twenty coining centres. The number of new cash fell to 850,000. About A.D. 770 there was not a sufficient number of cash for the needs of trade, because lead and iron had to be collected in bulk for necessary uses in market and home, and besides from Canton came gold, silver, cinnabar, and ivory. The consequence was that a deficiency of current coin was severely felt. The taxes must be largely paid in kind, that is, in cloth, silk, rice, and millet to make things easy for the people. Then the storing in the Imperial granaries will not be too much

* The Tang-shu of En-yang-sin, 52, 7, 23.

prolonged. In the markets there will be no glut. There will be more activity in the melting furnaces on the mountains. Less wealth will be lost to the foreigner. Market prices will rise and coined money will be cheap." This opinion of Yang Yu-ling about A.D. 780 was occasioned by the fact that cash were dear and scarce. If taxes were collected in cash the village weaver was obliged to give the tax gatherer three pieces of silk or grass cloth instead of one. Yang Yü-ling, the president of the Hupu at the time, said that the cause was in the irrepressible demand for metals and for foreign imports. X

Melting down.

The fixed weight of copper cash of the present dynasty is from one mace four candareens to one mace twenty-five. In A.D. 1084 it was decided that one cash should weigh exactly a mace. In A.D. 1702 it was changed again to one mace four candareens. At present, said the memorialist, writing at the beginning of this century, out of a hundred cash only one or two weigh mace one four. Out of a hundred cash thirty or forty weigh a mace. From careful inquiry and research in books it appears that cash weighing one mace continue in use and survive all others. It was decided to follow the precedent of A.D. 1684 and make a thousand cash weigh in all one hundred taels. One thousand cash at the time of the memorialist, weighed 120 taels. This would be a saving in copper and lead of one catty and four taels. The dishonest person who melts heavy cash would only obtain six catties and four taels. He would desist when he found no margin for profit. This statement is taken from the King-shih-wen. There is no date.

Counterfeit Cash.

It is difficult to prevent the practice of melting down good cash and making new cash of far less value out of the

metal thus obtained. A very large number of persons profit by this dishonesty. In the *Sin-wen pao* of June 23rd, 1898, it is stated that in Foochow at present three-tenths of the cash in circulation are genuine official cash and seven-tenths are made by private persons, who have surreptitiously added them to the currency of the city.

Value of Copper when coined.

Copper is a money unit made so by coining. This must be remembered in estimating the value of copper in the equation 1,000 units copper are equal to ten ounces of silver and are also equal to one ounce of gold. The copper cash of China, through the prestige they secure by government patronage and their use in paying wages on public account, attain a value beyond that of the copper of which they are made. When made with too little copper they have the same value as currency with those which are made with a full amount of copper. When a silver dollar becomes current as money in China, it attains a value above its price as silver. This is shown by the fact that an old Carolus is worth $\frac{1}{10}$ ths of an ounce (Shanghai, January 7, 1897). A Mexican (same date) is worth 74.5 per cent of an ounce. The real weight of the Carolus is $\frac{1}{10}$ ths of an ounce and of the Mexican $\frac{7}{10}$ ths of an ounce. In April, 1899, the Carolus was worth at Shanghai Taels 0.9.0 and the Mexican Taels 0.7.3.8.

Price of Copper.

In A.D. 1300 six catties' weight of cash passed for a tael of silver. In 1724, 100 catties' weight of copper cost $17\frac{1}{2}$ taels of silver. In 1895 one hundred catties of copper cost about 16 or $16\frac{1}{2}$ taels of silver. A string of 1,000 cash weighs about six catties. In the Hupu Regulations for 1831 the price of Yunnan copper in Kiangsu and Chekiang was nine taels a

picul and the same in seven other provinces. With expenses it was seven taels. The Kwei-chow price of copper was nine taels two mace.

Foreign copper cost Taels 15.3.0 in Kiangsu. In Fukien and Hupei the price of foreign copper was Taels 17.5.0.

In Canton salt went to Yunnan in return for copper. The silver price of a picul of copper was Taels 9 at the Chin-hai-ch'ang and Taels 11 at the Wan-pao-ch'ang.

Price of Copper in England.

In the year A.D. 1717 gold was bought and sold in London at £3.19.11 per ounce. Guineas were in use at 21s. 6d. One guinea was 5 dwts. $9\frac{3}{8}\frac{5}{8}$ grains, and 480 grains were worth £3.19.8 $\frac{3}{4}$. The market price of gold was 2 $\frac{1}{4}$ d. above its mint price in London. Debasement by wear caused this difference in the mint price.

Gold was coined at £3.19.8 $\frac{3}{4}$ per ounce and silver at 5s. 2d. per ounce. The ratio was 15.4.3 to 1. If we take it at 5s. 3d. per ounce according to the market price which prevailed after 1718, the ratio was 15.22 to 1.

The weight of an English penny is grains 145.833. (Ency. Brit., Coinage, VII, p. 37). The weight of a half penny is 87.5. A farthing weighs 43.73.

Gold, one sovereign weighs grains 123.27447. Half a sovereign weighs grains 61.68723.

Silver. A shilling weighs grains 87.27272. Sixpence weighs grains 43.63636. An ounce weighs 480 grains. Twelve oz. are one lb. December 31, 1897. Price of Chihli bars of copper in London £48.5.0 per ton (*London and China Express*). The rise of the price of copper in Japan between October, 1896, and October 1897, was in the proportion of 184 to 207.

Price of Copper and of Lead.

Ortai reported in 1728 (Chu-pi 27, p. 7) that there were forty-seven foundries in Yunnan. The amount of zinc was not enough. Recourse was therefore had to lead, and this metal was obtained from three localities in Kweichow. Two sub-prefects were sent to that province to buy lead and convey it to Yunnan. A tax of twenty catties in a hundred was paid to the Kweichow treasurer. The price for the lead at Ting-ton was Taels 1.6.0 per picul. At Chi-chia it was Taels 1.5.0. At Ma-tsung-tung it was Taels 1.4.0.

In the year 1727 Ortai recommended that nine furnaces should cease working. Lead, he added, had been found at Lo-ping-chou near at hand, and the import from Kweichow might cease. The lead from the two mines—Pei-chê and Kwai-tsê—would be sufficient. Another thing had to be considered. The Kweichow mines are in the mountains and difficult of access. Half of the workpeople there are very poor. They have no capital and cannot live without work. At present the price of a picul, he stated, is one tael or nine or eight mace. If the lead is not bought the miners will leave. It is better to borrow from the treasurer sufficient silver to purchase the lead and convey it away. I have directed the two sub-prefects to do this. They will convey the amount of lead contracted for to Kwei-yang at the price before arranged. The remainder they will buy at the market price and convey to Hankow for sale to Peking buyers. The profit will accrue to the public chest. The amount of silver from March, 1727, to October in the same year expended in this way was Taels 20,000. The lead bought was 2,000,000 catties. The amount of lead already conveyed is 200,000 catties. The expense for wages, coolie hire, and boat hire is Taels 3.5.0 per picul. At Hankow a picul sells for Taels 4.5.0. There is a profit of

one tael. There still remains lead amounting to 1,800,000 catties, and this is now on the way to Hankow. It will yield a profit of Taels 20,000. After this it will be possible to use the Hankow credit balance to meet the Kweichow outlay; however much lead there may be at the end of the year a return will be sent to the Board of the amount of profit.

White metal in sheets costs 47 taels a picul, copper wire is 30 taels a picul, Japanese copper ore is valued at 14 taels a picul. Spelter is mentioned in the tariff as contraband. Its price in Shanghai in 1899 was Taels 9.6 per picul. The government excepts munitions of war, because the import helps rebellions by supplying the leaders of rebellions with powder, shot and bullets.

Large quantities of saltpetre are annually smuggled into China.

White copper is the Chinese name for German silver. This is in fact zinc or a compound.

Manufacture of Copper Cash.

The copper coins of the year 1368 are one mace in weight and narrow. Those of the Yung Lo period a few years later are wider, and their weight only 8/10ths of a mace. Some cash made since that time have weighed one mace six candareens. In theory one thousand cash should be made out of ten catties of metal, but only six catties are actually used.

In A.D. 1644 each cash was in the mint one mace in weight and the thousandth part of a tael. On the back of the coin were the characters 一厘, one li. Afterwards the weight was made one mace two candareens. It was increased still more to two mace one candareen and a half. This was found too heavy, and it was made one mace, four candareens. A few

years later it was made a mace in weight and one mace four candareens. This was in the reign of Kang Hi, and 1,000 cash were changed for a tael of silver. Old cash were at the same time changed for seven mace. In the reign of Yung Cheng, about 1730, the weight for newly-coined cash was made one mace two-tenths. In the reign of Kien Lung a document of 1745 says, melting down was a worse evil than counterfeit coining. The writer says the best system is to make 1,000 cash represent one tael of silver. The cash are light. The copper used is less in quantity. There is no temptation to melt down the current coins. The people really find it the most convenient system when they can pass a cash for a thousandth part of a tael of silver.

During the 18th century a memorial by Chü Hsün in the Ching-shih-wen says copper cash are requisite. Silver is not sufficient. Copper is found in abundance. Silver is hard to obtain. Copper cash can be made *ad libitum* as they are required. Famines will occur in most of the provinces, and in famine times the grain tribute is not forthcoming. On the other hand, the Emperor gives grain and copper cash in charity. The people suffer because for the annual tribute they have only millet, cloth and silk fabrics, and the government always prefers silver. The people go in search of silver to pay to the revenue officers. It is employed to meet the current expenses of the central government or is paid to the troops. Each year the fixed amount is many million taels. Silver becomes dear on account of this large demand constantly occurring. Millet, cloth and silk become cheap. Thus the people are impoverished. It then becomes a duty to open the mints and manufacture more cash.

The question occurs, can the manufacture of cash be made to yield a profit? Seven catties of copper make 1,000 cash. With the expense of making added, 1,000 cash cost a tael of silver. No profit then is possible. But it is really 100%

profit, because the 1,000 cash when made are still circulating among the people. The memorialist added, my opinion is that silver and cash should both be used. A thousand cash are worth a tael. The people, however, do not like cash ; they prefer silver. When the proportion is seven parts silver and three parts cash they still try to avoid paying cash. In collecting taxes for paying troops and forwarding money to Peking, not only should silver be demanded but the proportion half silver and half cash should be observed. The ground for this is to prevent silver from becoming dear as it would be if silver only were demanded, and to prevent copper cash in the same way from becoming dear if cash only were received in taxes. It is really best for government and people to maintain a double currency.

While copper is the chief metal used zinc is the usual alloy. The weight ought to be the one thousandth part of an ounce or tael according to the government standard, and copper cash, as actually manufactured in government mints, should represent about 75 per cent of their nominal value.

Sometimes large cash representing five cash, ten cash and twenty cash in one piece, have been issued. In the years 1853-4, iron cash were manufactured by the government. When the attempt was made to put them in circulation this new currency was quickly found to be impracticable and was soon abandoned.

A mint, the largest in the world, was established by Viceroy Chang Chih-tung at Canton. A Scotchman had it in charge in the pay of the Chinese government.

The price of copper rose after the Japanese war with China, and it became profitable to melt down all cash which contained a certain weight of copper. The crime, if discovered, is visited with heavy punishment, but it is easy to escape

discovery. The number of cash in circulation diminished rapidly so as to cause much inconvenience to the public. To remedy this state of things cash have been manufactured in large quantities at Canton, Woochang, Shanghai, Hangchow and other large cities.

The offer under the old régime was never made to owners of silver or of copper to bring silver and copper to be made into coin and returned to them to put it themselves into circulation in the ordinary course of trade. But a change has taken place in this respect recently. On September, 1898, the Tsung-li Yamên memorialized the Emperor on coining copper cash. Liu Ching-feng recommends that the method of coining formerly in use be still followed.

In the *Shen-pao* of September 21, 1898, there is a memorial of Liu Ching-feng on foreign coinage. He was eleven years abroad. He learned to admire foreign money, and recommends its imitation by China since the manufacture can be made profitable to the State. The benefits are four. The capital needed is small. One thousand Chinese cash weigh seven catties, and 100 catties cost twenty or more taels of silver. There is a loss of one-half in coining. If alloy is used in too large a quantity the legend is indistinct. If in China we make ten cash or twenty-cash pieces, 100 catties of copper make 80,000 cash. There is twice as much profit as before. The second advantage is in excellent workmanship. Wellmade money cannot easily be counterfeited. By using mint machinery the inscription is clear and false coiners are at a disadvantage. Inferior machinery fails in the attempt to imitate well-minted coins. By using five, ten, and twenty cash pieces there is an advantage in the fact that counterfeiters lose money. The third advantage is in uniformity of market value. The five, ten, and twenty cash pieces change for a dollar or a silver tael at a fixed price. The fourth advantage is that they are made legal tender by a law requiring them to be received in taxes

at the fixed rate. Unfair discounts charged to enrich the receiver can thus be prevented. Fifty years ago government treasury-notes failed to obtain extensive currency, because they were not received in taxes. The writer proceeds to urge that the new silver coins be permanently used in China in conjunction with well-coined copper cash. After a time paper money can also be introduced as in foreign countries; this kind of money is found to be beneficial to trade.

At Soochow in 1898 spelter from Yünnan, to the amount of 5,000 piculs, was received to be used in cash manufacture. *Hu-pao*, December 12th, 1898.

Shen-pao, December 15th, 1898. The governor of Kiangsi asked permission to make cash to weigh eight caudareens as approved by the Board of Revenue. Formerly the weight was one mace. The execution must be attractive to compensate for lighter weight. If it is not pleasing to the eye the Wei-yuen in charge and the workmen are to be severely punished.

Casting Cash and Silver Coins.

The price of copper is increasing, and as 1,000 cash weigh six catties and four ounces a coiner of cash would lose money, yet the number of cash in circulation constantly diminishes. A considerable profit results from melting them. New cash must be made smaller and thinner. In 1898, 100 catties of copper cost Taels 20. The same weight of lead cost ten taels. If copper and lead be purchased for thirty taels of silver, and made into cash, one hundred catties will yield 625,000 cash. If these cash are used to buy silver at 1,210, the value on September 12th, 1899, the coiner gains taels 21.6.0. The cash ought to contain only enough copper to render it unprofitable for the coiner to melt down the cash. If cash

are still made weighing $6\frac{1}{2}$ catties per thousand a coiner will profit to the extent of ten or fifteen per cent by melting them. The coiner of counterfeit cash uses too little copper to make good looking coins.

New Cash cast at Moukden.

The Governor-General of Moukden province says (Chung-wai, November 16th, 1899) cash at eight candareens entail a loss. He has curtailed the copper so as to use five candareens in weight, half copper and half lead. No benefit will result to the melter if he melts these cash. The mint at Moukden is making 1,600 strings each day. 30,000 strings are in stock. They are not so elegant as those made with machinery, but they are strong and not too thin. The Emperor has seen these cash, and they are approved, and more will be made.

The Kiang-si Mint.

At the Kiang-si mint eight mao are cast in one year. Each mao contains 1,958 strings and 400 cash. When 200 catties weight have been made the workmen are paid 6,400 cash; they finding charcoal, etc. Fifty-two parts copper, 48 parts spelter is a better proportion than 50 to 50. The new coins are less brittle with this proportion. Waste in melting 火耗 is to be charged 20 parts in a hundred instead of 15 as it was formerly. This is to secure that the quantity of metal shall not be insufficient, now that foreign copper is dearer to buy. In future with 52 parts copper 7,959 catties will be cast. With 48 parts spelter 7,344 catties will be cast. Together they make 15,300 catties. In all subtracting for waste charge 20% and quality 8% the amount will be 12,240 catties of sixteen ounces each. This is Taels 195,840. The number of cash will be 2,448,000. *Shen-pao*, December 15th, 1898.

Japanese Cash in China.

In A.D. 1752 orders were given to forbid the import of Japanese copper cash at Shanghai, Ningpo and Cha-p'u. Sometimes the Japanese coins known as Kwan-yung cash were found to amount to nearly one-half of the cash given in change for a tael of silver. Cha-p'u must then have been an open port. Subterranean elevation of the coast has since rendered the trade there impracticable. The rule was made that Kwan-yung cash should be bought up and sent to Peking to be melted down and made into Chinese cash.

Turkestan Currency.

In the year 1781 the Emperor was asked if the currency of Turkestan should be supplied with new cash from Pu-er in Yünnan. The Emperor said, let the mint at the city of Pu-er still continue to make Pu-er copper into cash at 100 to the tael, each of them counting as ten ordinary cash. This would be better than conveying Pu-er copper to Ili to be made into cash there at 800 to the tael. It may be noted here that the Emperor saw clearly that the proper place for minting copper cash was Yünnan when money was required at a great distance.

Annual Amount of Cash coined.

COPPER CASH IN THE PRESENT DYNASTY.

Shun Chih	1 A.D. 1644	71,663,900 cash	
	2 1645	443,751,760	
	3 1646	624,823,960	
	4 1647	1,333,384,194	
	5 1648	1,449,494,200	
	7 1650	1,682,424,510	
	9 1652	2,097,632,850	201,210 old remainder.
	10 1653	2,521,663,740	213,370 „
	11 1654	2,488,544,460	201,210 „
	12 1655	2,413,878,080	

Shun Chih	17	A.D. 1660	280,394,280 cash	201,210 old remainder
	18	1661	291,584,600	
Kang Hi	5	1666	295,879,800	
	10	1671	290,475,830	
	15	1676	231,365,360	
	20	1681	231,398,600	
	25	1686	289,936,700	
	30	1691	289,925,400	
	35	1696	237,063,050	
	40	1701	238,065,800	
	45	1706	238,075,800	
	50	1711	374,933,400	
	56	1717	399,167,300	
	60	1721	437,325,800	
Yung Cheng	1	1723	499,200	
	4	1926	675,160	
	5	1727	723,528,000	
	6	1728	746,304,000	
	8	1730	757,865,000	
	9	1731	1,048,759,660	

In the reign of Shun Chih two million strings of cash were cast during several successive years, that is, from 1652 to 1655. But in A.D. 1660 the quantity was thought too great for the need of traders. After this time 300,000 strings were believed to be sufficient. This continued to be the number of new copper cash made down to 1711, when the quantity was increased to about 380,000.

In the Hu-pu Regulations of the year A.D. 1831 the number of cash made yearly in each province is recorded. They amount in all to two million and fifty thousand strings of cash. These regulations were in use in the reign of Chia Ching and Tao Kuang, that is, from about A.D. 1800 to A.D. 1830. This number of new cash sufficed in those times when the population was increasing from 300 millions in A.D. 1800 to 394 millions in 1839.



The numbers represent strings of 1,000 each.

Peking	...	899,856	Szchwen, additional	14,868
Chili	...	60,666	Kuangtung	... 34,560
Kiangsu	...	111,804	Kuangsi	... 24,000
Kiangsi	...	41,928	Yunnan	... 94,860
Fukien	...	43,200	„ additional	84,924
Chekiang	...	129,600	Kueichow	... 94,860
Hupei	...	84,000	Shansi	... 17,472
Shensi	...	87,360	Hunan	... 47,880
Szchwen	...	179,259	Ili	... 1,122
				<u>2,052,219</u>

This amounts to only two strings of 1,000 cash each for three hundred persons. The population was increasing at the rate of two millions a year, so that each new person had in fact one string of cash made for his use.

Each year in the reign of Chia Ch'ing the number of strings stated in the table would be made in the proportion mentioned for each province. Nearly half the required number were manufactured in Peking. The number for Chekiang is large, because of the silk and tea trade. Kiangsu supplies Anhui province, and is large on that account. Szchwen has a very large population and prosperous agriculture. Especially was this the case before the spread of the poppy cultivation which, as in Shansi, has done not a little to demoralize the poorer classes. Hunan and Hupei need large quantities of new cash for the tea trade. Shensi has a large supply, because it shares the new cash with Kansu. The amount stated as made at Canton is small, because there silver is very much in circulation in foreign trade. Yunnan has been accustomed to make a large number of new cash, because copper is found there and it is convenient to export cash in payment for the produce of the adjoining provinces.

In making cash the alloy according to the regulations is 4/10ths spelter, 6/10ths copper in the coins formerly made in Peking.* When the copper was inferior some lead was used. The proportion was: copper, 54; spelter, $42\frac{3}{4}$ ths; lead, $3\frac{1}{4}$ th. Strings to the number of 3,993 are made with 29,952 catties of the mixed metal. Seven catties go to make a string.

Annual Number of New Cash.

PROVINCES.	FURNACES.	NUMBER OF MAO 兩.	NUMBER OF CATTIES.	STRINGS TO EACH MAO.	EXTRA CASH.	TOTAL STRINGS.
Chihli ...	5	48	9,360	1,248	1,855	59,904
Kiangsu ...	16	28	29,952	3,993	600	111,804
Kiangsi ...	6	24	13,104	1,747	200	41,928
Fukien ...	4	36	9,000	1,200		43,200
Chekiang ...	10		972,000	129,600		129,600
Hupei ...	10	21	30,000	4,000		84,000
Shensi ...	20	24	27,300	3,640	2,259	87,360
				301	210	7,224
Szchwen ...	40		1,008,352	134,447	40	134,447
Additional ...			87,647	11,152	960	11,152
Four mao extra		4	84,029	11,203	970	44,812
Additional ...			6,970	929	413	3,716
Canton ...	6	36	7,200	960		34,560
Kuangsi ...	5	3	1,000	133	333	
		36		24,000		24,000
Yunnan ...	38	36	780	104		5,760
			78	10	400	
			77	10	285	
Kueichow ...	20	36		36	36	4,464
			780	104		
			78	10	400	
			77	10	285	
Ili ...	2			1,122		1,222
Shansi ...	4	12	10,920	1,456		17,472
Hunan ...	10	36	1,000	133	332	4,788
Chihli, additional			5,720	762	666	762

* Hu-pu-tse-li of 1831, 34, 10.

A mao 卯 consists of 300 piculs or 29,952 catties. The number of mao in a month was for Chihli four.

The number of catties includes copper and spelter.

The whole number of strings of cash is: total strings, 872,145. In Kuangsi the number of mao in a year is 36. In 1815 spelter and lead began to be used in the proportion since adhered to in Chinese mints.

The numbers here tabulated are taken from the mint statistics of the year 1831. Mr. A. H. Harris kindly aided me in preparing this table.

Rules followed in coining Cash.

The Regulations of the Board of Revenue on this subject have been accumulated during two centuries and a half, being the time that the present dynasty has lasted. The edition I have followed is that of 1831.

The proportion of spelter to copper in making cash is four parts to six. More accurately in a hundred catties 54 catties are copper, 42 catties 12/16ths are spelter, 3 catties 4/16ths are lead. When the copper is inferior, lead is not used and spelter takes its place. The central provinces with Canton and Fukien on the south-east and Shen-si in the north-west all have the inferior copper called 金釵廠 Chin-ch'ai-ch'ang copper. Peking and Shansi at the date of this regulation used foreign copper, buying it from merchants who imported it. Szchuan, Yünnan and Kueichow have lead mines and follow the regulation.

Dimensions of Cash.

We are told in the Chiu-tang-shu that the cash made in A.D. 620



weighed the 1000th part of six catties and four ounces or taels. Ten of them weighed one tael. They were made in Honan-fu, in Peking and in Chêng-tu. These

cash, it should be noted, were cast in A.D. 620. The nien-hau, K'ai-yuen, was adopted later by the famous Emperor T'ang-Ming-huang in A.D. 713, and was in use to 742.

In the *Shen-pao*, November 8th, 1898, it is stated that the new cash now being made at Tientsin weigh four catties, ten ounces per 1,000. This weight secures them from being melted down. Previous to this new coinage notes were in use to supply the lack of cash. In daily transactions two parts in ten of cash and eight parts in ten of notes were being paid.

Scarcity of Copper Cash.

The chief cause of the great lack of copper cash of late years has been the closing of all the provincial mints, about the year 1853, when Nanking was taken by an insurgent force and kept for twelve years. It became impossible to procure copper from Yünnan. In addition to this the cash shops on account of the high price of copper at Tientsin especially, have disposed of large quantities to surreptitious coiners, who have made them into small cash of inferior value. The profits are divided between the coiners and the cash shops. Both are punishable if detected. *Shen-pao*, May 20th, 1897.

Other causes are that rich men receive their rents in cash and the redemption money for pledges also in cash. Their profits come to them in this form. Their payments are in silver, because silver is more easily carried. Also the temptation to hoard is great when the price of copper cash rises, and when silver is falling, silver is less valued.

Copper and Copper Coinage, A.D. 1780.

The History (Tung-hua, 35, 24) states that the copper sent up from Yünnan to Peking was insufficient, and the official price paid at the mines was too low. Private buyers gave more for the copper. The roads from the mines are too many to be

well guarded. The rule was at that time that nine-tenths should go to the government and one-tenth be privately sold. The cash then made were seven and a half catties to a string. The Emperor remarked that wheat and rice were bought for the granaries and sold again to lower the market price of food when it rose. Let the same be done with copper cash. The secret coiner melts down the imperial cash and makes smaller coins, or he carries away from the mines the copper which ought to go to the government mint. Let small cash be bought and made into large cash when this can be advantageously done. The Emperor says: "We wish to have a uniform currency. Let us buy up the small cash made by unprincipled men and expend a little money in making them fit for our purpose."

Coinage at Nanking in A.D. 1900.—Lu, Acting Viceroy of Liang-kiang, stopped the coinage of copper as being too expensive, but it has been found that the price of cash has risen so much that a new supply is required. The Acting Viceroy has now appointed a T'i-tian Ch'eng-king-ming to commence the manufacture of new cash at once. The mint would begin operations April 24. *Sin-wen*, April 27, 1900.

Copper Cash made at Canton.

In the Ching-shih-wen is a memorial by Hsia Yin, which appears to belong to the early part of the Chien Lung period. He says it is only lately that copper and silver have unitedly become the national currency. In Peking at the two principal mints copper to the extent of millions of catties is used each year in making new cash. Cash increase in number and become cheaper; at the same time more copper is bought, and the price of copper rises. While cash become cheaper and copper becomes dearer how can a profit be realized? The province of Canton uses silver as currency and not cash. Although Lei-chon-fu (the southernmost prefecture of Canton, forming a penin-

sula fronting Hainan) uses cash, the cash there in circulation are all of the Sung, Yuen, and Ming dynasties, and not those of the Manchu dynasty. Canton, being a seaport, can obtain copper from foreign merchants. No city can be more convenient for a mint. Also the fact that copper cash have in Canton province not been used before is security for the success of a mint now. Copper can be obtained for the Canton mint from the Shao-chou custom house and that of Kung-chou (in Kiangsi). The newly-made cash can be used in paying official salaries and army expenses. The conveyance of copper over seven or eight thousand *li* will thus be saved. This will be a saving in the provincial treasurer's books of many thousand taels annually.

Expense of Mining for Copper.

The *Sin-wen* of September 12, 1899, says that Li T'ie-ch'wen has received the Emperor's permission to mine for copper. Copper is greatly needed to provide for the mints in this time of scarcity of copper cash. But the writer of an essay in this Journal thinks he ought not to look to the people to subscribe funds. The navy has cost the people during ten years 1,604,000 taels. Each year the people contribute 1,000,000 taels. The expense of mining is stated as follows: Yünnan copper, 100,600 piculs, cost in silver at present prices Taels 300,000. Foreigners should be invited to take shares, and then the Yünnan mines can be made to yield a vast amount of copper.

PART III.—SILVER.

Sources of Chinese Silver.

Monsr. G. Pietsch, of the Comptoir d'Escompte de Paris, in his Memorandum on the Weight and Monetary System of Shanghai, July, 1864 (printed in 1896 in Imperial Maritime Customs papers No. 47—Sycee, Weight, Value, Touch), states that at Ho-shan (Yünnan) and at Tung-sing, on the borders of Cochin China, there are silver mines farmed out by the government, the renters of which employ from 40,000 to 50,000 workmen. The annual product is estimated at Tls. 2,000,000. There are besides other mines in the interior of the empire less rich than these if considered individually, but whose united product would be in all probability something considerable.

Refined silver is cast into sycee.* The name of the caster and the date and place of the casting are stamped on the shoes of silver as they are made.

On leaving the hands of the founder the shoes or other shapes of silver are submitted to the inspection of a government officer or public appraiser called Kung-ku 公估. After having examined them he places on them two marks in Chinese ink, to indicate both fineness and weight. The shoes go into circulation at the value and degree of purity determined by the appraiser and so marked by him.

In the Tang dynasty Chinese native silver was found in several localities. In A. D. 806 says the Tang-shu, ch. 54, pp. 5,

* The word sycee is in Cantonese 絲細 *Si-soi*. It means the thin threads into which pure silver can be drawn out by the use of heat. In North China small pieces of silver are called *San-sui-yin-tsz*, 散碎銀子, or *Ling* 零, *Sui-yin-tsz*, *Sin* is 細. In English the words little and rend or tear correspond to the Chinese *Si* and *Sui*. We may write the roots *sut* and *tut*. To tear is 撕 *Sz*, 裂 *Liet*. So also 公 *Kung* is the Latin *cum*, which was an adjective before it became a preposition. 估 *Ku* is *curo*, look after, care for. The root *kot*, "care for," calculate, is repeated in our word calculate. It occurs as the second root "git" in cogitation. Calculus, a pebble, was so called because pebbles were used in calculation.

7, 12, the amount annually obtained was Taels 12,000.* In A.D. 850 it was Taels 25,000. At the rate here mentioned of about 20,000 taels a year only two million taels of silver would be added in a century. During the years 1894, 1895, from twenty-five to forty million taels of silver came into China from foreign countries in a single twelve month. It may be concluded that during the three centuries of the Tang dynasty the produce of Chinese silver mines was not more than the fifteenth part of the amount of silver now received from foreign countries by China in one year. Just at present there is an excess of exports over imports. China buys less foreign opium, and she sells to foreign countries much more of cotton, of wool, of peltry, and of straw braid than formerly. The war with Japan led to government loans, and government loans were the chief cause of the large import of silver during some recent years. But if the exports of Chinese produce continue to exceed the imports there will necessarily be an annual money balance in favour of China. This will inevitably lead to a steady flow of silver into the country.

1893	Imports	Tls.	151,000,000.	Exports	Tls.	116,000,000
1894	"	"	162,000,000.	"	"	128,000,000
1895	"	"	172,000,000.	"	"	143,000,000
1896	"	"	203,000,000.	"	"	131,000,000
1897	"	"	203,000,000.	"	"	163,000,000

The striking fall in exports in 1896 was caused by the loss of Formosa and by decreased export of tea, silk, and cotton.

1898	Imports	Tls.	200,000,000.	Exports	Tls.	159,000,000.
1899	"	"	265,000,000.	"	"	196,000,000.†

By the Chu-pi (Ch. 13, p. 64) statements in A.D. 1727 it appears that in that year foreign vessels brought Spanish dollars to Canton to the amount of Taels 537,500. This we

* Tang-shu 54, 5, 12. "The rise of silver in 1900 from 2s. 8d. to 2s. 11d. is due to Chinese absorption of silver. This is a rise of three pence or $\frac{3}{8}$ rd of the value in London." But January 19th it was 2/9 $\frac{1}{2}$.

† Customs Returns of Trade for 1899.

learn by noticing that the governor counted them at one-tenth less per tael and received himself Taels 43,000. Taels 430,000 + 107,500 = Taels 537,500. The hong merchants consisted of sixteen or seventeen firms. They had a monopoly of the foreign trade.

Silver sent by Chinese Emigrants.

Siê Fu-cheng, minister to England, France, Italy, and Belgium, left China in 1889. He says in his diary, Ch. 1, p. 15, that Chinese emigrants send back large amounts of silver to China. This is useful in redressing the balance of trade and to a considerable extent prevents China from losing silver in paying for imports when as often happens the value of imports exceeds that of exports.

This author says Chinese emigrants in Cuba, Peru, Saigon, and Singapore with those in the Southern Archipelago generally, must be several tens of millions. This is an overstatement on his part. He adds that Chinese imports amount annually to twenty million taels in value. But it is only in 1898 and 1899 that imports have exceeded exports by seven and sixteen million taels respectively. In 1893, when I saw the author in London, exports exceeded imports by three million taels and China was receiving this amount of silver. In 1894-1895 the value of exports over imports was five millions and eleven millions. In these three years, taken together, China grew richer by twenty-one million taels. In 1896 China lost by purchasing too many imports, 31,000,000 taels, and in 1897 she recovered 4,000,000 taels by adding largely to her exports.

Judging by these seven years China has parted with thirty million taels through the purchase of too many imports. She ought to abandon opium smoking and expend less on cannon and other munitions of war.

According to Mr. Stephen Hallett's calculations the Chinese emigrants abroad amount to about 2,400,000 in

number. He does not include Mauritius and South Africa. We may then call them three millions.

Silver Mines in China.

— Silver was mined for in Yünnan in the Ming dynasty. Eunuchs were in charge of the mines with the title 鎮守太監, Chen-show-tai-kien. The production gradually rose to Taels 30,000 in a year. The people were allowed to work the mines, but this liberty was sometimes withdrawn. In the year 1663 when the province came under the Manchu government, the people were allowed to work the mines. In 1708 the amount credited to the government was Taels 27,000. Twenty years later it was Taels 70,000. The people who preferred mining to agriculture mounted up to the number of 100,000 persons. The consumption of 2,000 piculs of rice a day and 800,000 piculs in a year was occasioned. Yünnan cannot be reached by boats and carts. A hundred thousand people needed food, which they, none of them, worked in the fields to obtain. Silver mining is fatal to agriculture.

— In the year 1885 Hsiê Kuang-ch'í in a memorial presented to the Emperor asks for the withdrawal of the prohibition to work mines in Kuangsi. As a method of raising money for the needs of the government this had not been brought before the Emperor by others. The five metals—copper, gold, silver, iron, and tin—are all found in Kuangsi. The metalliferous advantages of this province equal those of Yünnan. The most productive silver mines in the province are those of Hsiün-chou towards the centre. Silver has been mined for there at P'ing-tien-chai, on a mountain of Kwei-hsien, which on account of its flat top may be called a table mountain. On the mountain side miners worked fifty years ago. A picul of the stone yielded a few taels of silver and from twelve to thirteen catties of lead. When the Tai-ping rebellion broke out these miners joined it and went to Nanking with the rebel army. About 1857

a robber band worked a silver mine on the same mountain. After a time the Imperial troops attacked the fort they had erected, but failed to take it till about 1862. The Kuangsi treasurer, Liu Kwun-yi, the present Nanking viceroy, captured the head of this band and destroyed the fort. After this, parties in search of silver fought and struggled with each other, and during several years not a few murders were committed. To avoid trouble the local authorities did not report these things, but represented that the silver mines were closed by imperial order. This was not the fact, and in 1871 the acting magistrate, Chang Chia-chi, anxious to learn the state of the mines, sent men to inquire quietly. He found that silver was worked at 103 places and that there were between ten and twenty persons in each mine. Unfortunately the miners met with silver ore in fragments only. They did not work steadily, and never found large masses. The furnace used was small and rude in construction. If the miners were to work hard and with uniformity at each silver vein, and a large well-constructed furnace were in use, the results would be far more satisfactory than they are now. This magistrate wrote a despatch containing these particulars and asking for leave to work the mines. Nothing came of it, and shortly after the prefect of Hsiün-chou sent soldiers to the mines with unfortunate results. The miners attacked the soldiers and killed several of them. On this the prefect prudently desisted from disturbing the miners. A Kiangsi Taotai next proceeded to the spot. He was fired on with cannon by the miners, and in discouragement returned to the capital of the province. The difficulties met with by those who attempted official control of the mines after this time down to 1885 are described. Good managers could not be obtained. Those who were appointed, developed bad qualities. They were successively relieved of their duties. No good opening presented itself for the effective commencement of official mining, and funds were not forthcoming.

When this memorial was written, private miners still worked the mines, and as the reports of the commissioner at Lung-chow are silent on the question of the working of the mines, they are probably still in the hands of unauthorized persons. When Chang Chi-tung was viceroy of the Two Kuang he proposed to re-open and work the Kwei-hsien mines with foreign machinery, but the people of the locality objected from superstitious ideas.

Silver mines have been worked during the present dynasty in Szchwen, Yünnan, Kuangsi, and Kwei-chow. An edict of 1844 (History 11, 35 下 6) says that the faults of the Ming dynasty in the working of mines have, in the present dynasty, been avoided. Insurrection and robberies at the mines have not occurred. Our system has succeeded better than that of the preceding dynasty. It is evidently preferable for private persons to open and have charge of the mines, and this system is better than to work them on official account. Orders were given that permits officially stamped should be given to suitable persons who desired to search for silver and open mines in new localities; in addition to those which at that time were worked, the Emperor gave reasons for not allowing official management. He feared rapacious appropriation of the metal and disturbances occurring at the mines. He preferred that private persons who could be relied upon should receive permits to open mines.

Value of Silver in the Eighteenth Century.

Adam Smith said that in the English mint a pound weight of gold was coined into $44\frac{1}{2}$ guineas. This is £46. 14s. 6d. An ounce of gold was worth £3. 17. 10 $\frac{1}{2}$ in silver. A pound weight of silver was coined in the mint into sixty-two shillings. The mint price of silver was 5s. 2d. an ounce.

The prosperity of China during the eighteenth century gave an impetus to trade. The Emperor Shêng Tsu (Kang Hi) acquired the whole empire about 1690. It was then Wu San-

kwei died who had long been a powerful ruler in South-western China. The Emperor was able in the year 1710 to give up the whole revenue for one year. It was the fiftieth year of his reign, and he assigned it to the people as a jubilee gift.

In A.D. 1726 the Shansi treasurer reported that in his province cash were very scarce, although his office was little more than 1,200 *li* distant from Peking. He found that in 1,000 cash there were not more than twenty or thirty newly-coined Yung Chêng cash. The expense of conveying cash from Peking was so great as to be prohibitory. The price of silver was, on account of the high value of copper cash, 900 to the tael. The market prices of rice and cloth were raised in consequence. This was unfortunate for the poor. He therefore recommended a change in the system with a view to increase the circulation of cash. From the year 1727 onward he asked that soldiers' pay in Shansi should be eight-tenths in silver and two-tenths in cash. The outlay in a year was Taels 800,000. Copper cash would be needed to the extent of 160,000 strings. Twice a year let the governor send messengers to the Board of Revenue to ask for 80,000 strings to be entrusted to the treasurer on arrival at Tai-yuen-fu, and to the circuit superintendents and prefects. The value should be 1,000 cash to the tael. Each soldier would receive 8-10ths silver and 200 cash to count as 2-10ths copper cash as his pay per tael. After a few years, through this annual import of 160,000 cash, silver would easily recover its value of 1,000 cash per tael. The expense of conveyance would appear in the public accounts as soldiers' pay. The Emperor refused to allow this change to be made, but the price of silver was as stated. *Chu-pi-yu-chi* 13, 84.

In the year A.D. 1739 (*Tung-hwa* 1, 56, 4), in the prefecture of Yung-p'ing-fu, east of Peking, 1,000 cash answered to a tael. Expenses made the grain tax exceed a tael by one mace five candareens. The people paid at the rate of 1,150 cash. This shews that at that time silver was worth exactly

1,000 cash to the tael. The people were allowed to pay silver or cash as was most convenient to them.

In the year 1741 the Emperor in an edict blamed the Shanse revenue officers for levying too much from the people. Each tael was estimated as being in value 1,030 cash. The officers made it two mace above one tael. It ought to be only one mace three candareens. If we add two-tenths to 860 cash we have 1,030 nearly, so that a tael of silver in that year would be changed for 860 cash in the province of Shansi.

In the same year the Emperor ordered the tax to be one tael a picul with additional two mace. This was to be the amount of levy in Shensi and Kansu.

In the year 1782 the exchange between gold and silver at Hangchow was at $75\frac{1}{2}$. History mentions that 4,784 taels of gold were exchanged for 73,594 taels of silver. Tung-hua-hsü-lu, ch. 27, p. 20. The best gold was at that time twenty times that of the same weight of silver. Do., ch. 27, p. 27.

Value of Silver in the Nineteenth Century.

By the Regulations of the Board of Revenue* it appears that in the year 1831, when the edition of the Regulations here used was printed in Peking, the tael of silver was exchanged for a thousand cash in that city, but for twelve hundred cash in Yünnan. The cause of the difference of two hundred would be the cheapness of copper in the province where it is now worked. The banner men and soldiers were paid in Peking 1,000 cash as a tael of silver. Soldiers in Yünnan were paid 1,200 cash. If the market price of a tael was less than 1,200 cash the cash given to the soldiers was proportionately less. If the price of silver rose above 1,200 cash the soldiers were paid six parts of their monthly wages in silver and four parts in copper cash. The Board of Revenue did what it could, as the regulations shew, to maintain the

* Huputseli, chap. 34, p. 32, col. 12.

standard of silver value at twelve hundred for Yünnan. At the same time they directed that in Shansi, Chekiang, and Shensi allowances to prisoners for salt and vegetables should be charged not in cash but in the current market equivalent in silver. They also directed that in Chekiang when the rice tribute was to be levied in the money equivalent on small proprietors, fourteen cash were to be accepted for one candareen and six-tenths of silver. This points to a low price of silver in that part of China at the time when this regulation was made. In China silver always falls in value at a distance from the chief centres of traffic.

One of the causes of the remarkable rise and fall in the value of silver in the nineteenth century is to be found in the extended trade with India and China carried on by England and other countries. In China this may be considered the chief cause.

In 1847, says the History (Tung-hua 12,27), salt at Hankow was 50 to 60 cash a catty. In silver this was Taels 0.23 to Tls. 0.24. Silver then would be worth about 1,300 cash at that time. This was an appreciation of thirty per cent. above its old value. But the tael was worth 1,300 cash for twenty years before that time. In 1827 one tael of silver was changed for 1300 cash. Salt was sold at 16 cash per catty.

During the years 1840 to 1880 silver was in great demand to pay for opium in particular, because of the unexampled eagerness of the people in the purchase of that drug.

The people must have it, whatever it cost them, and on the opium smokers must rest the blame of the consequent derangement in the currency. In Wei-yuen's remarks on silver in the 聖武記 Sheng-wu-chi, he quotes Huang-chio-tsz, who said in 1838 in a memorial that this was the chief cause of the rise of the value of silver from 1,000 cash a tael to 1,600 cash a tael. This was attended by a boom in the price of dollars. The Emperor commanded the viceroys to give their

advice. That of Viceroy Lin Tsê-hsü was to establish a system of absolute prohibition. He was sent to Canton to act at his discretion, and his action in destroying 22,000 chests of opium brought on the war of 1841. In 1765, 200 chests were imported yearly. In 1796 the import was prohibited on account of the alarming increase in the consumption of opium. By 1820 the sale amounted to 3,000 or 4,000 chests a year. In 1821 there was another prohibitory decree. The advice of Yuen Yuen when he was Canton viceroy was to restrict the trade at present, with a view to ultimate strong action when a plan could be found for driving away the ships that bring opium. Gradually there came to be 20,000 chests in twenty-five ships. It would be about A.D. 1816 that Yuen Yuen wrote this memorial, for in 1812 he was chief manager of grain conveyance in An-hui, a much inferior office. About this time a great change for the worse had taken place. Li Hung-pin was viceroy at Canton. The Chinese cruisers appointed by him to prevent smuggling received presents to the amount of Taels 36,000 each month. In return for this gift they allowed the contraband trade to be carried on unchecked. Before this the rule had been made that no silver should be exported. Goods were to be exchanged for goods. The goods foreign traders sold to China were less in value than those they bought. The balance was paid in silver. The amount of silver thus imported in return for tea, silk, porcelain, and rhubarb was four or five million dollars. This was a very valuable addition for the time to Chinese currency. When the import of opium increased, this drug took the place of silver and the price of the dollar and of all silver rose rapidly in China from that time forward. The prohibition of the export of silver became a dead letter.

In the year 1832 the Canton Viceroy Lu Kwnn ceased to use anti-smuggling vessels. Corruption was too deep-seated to be eradicated. This is shewn by the following facts. In

1837 the viceroy of Canton, Têng T'ing-chêng, again placed vessels to watch against contraband trade. Colonel Han Chao-ch'ing formed a plan for his own profit. Being naval colonel he could do this. Every ten thousand chests allowed by him to pass were to obtain this freedom by a present of several hundred chests to the prevention vessels. They were reported as captures. He even used the vessels to carry chests for the importers. He was rewarded with the rank of brigade-general and a peacock's feather. All his men received money, and the import of opium grew to 40,000 or 50,000 chests.

At this juncture the Emperor was asked to allow opium to be imported as medicine on payment of duty. The Emperor made no reply. Lin Tsê-hsü counselled strenuous measures, and the Emperor entrusted to him the duty of putting an end to the opium trade. The result was that Commissioner Lin compelled the British vessels to surrender 20,283 chests of opium. This was in the spring of 1839. The opium weighed 237,600 catties. Three catties of tea were given as a reward for each chest. He asked the Emperor if he should send the opium to Peking. The reply was, destroy it at Canton that the people on the coast may all see and know what is being done and be afraid to transgress any more. Each chest was worth \$250 in India and \$500 or \$600 on arrival at Canton. The entire value was \$5,000,000 to \$6,000,000. Including profits to importers it amounted to about \$10,000,000 (King-shi-wen-sü-pien, ch. 78).

The loss to China in silver through the action of Lin Tsê-hsü may be seen in these figures. The indemnity was paid in silver when peace was proclaimed. The price of silver in the country rose in consequence. In the year 1900 the Boxer insurrection has been accompanied by a rise in the value of silver, through the demand for it by refugees. In China silver is indispensable in traveling. Gold cannot be changed

for copper money except in large cities. The Boxers caused a universal exodus of the inhabitants wherever they went. These robbers were encouraged by the government, and the result was the sale of gold for silver to so large an amount as to raise silver to $\frac{1}{3}$ rd of the price of gold instead of $\frac{1}{8}$ th. Silver rose about three pence through these events.

Japanese Adoption of a Gold Standard.

In February, 1897, gold bars were quoted in Shanghai at Taels 331 $\frac{1}{2}$. This price continued to March, when it was 345 for one description of gold and 338 for another. March 10th, the numbers were 343 and 350; March 18th, 354 and 361; March 24th, 343 and 350; March 31st, Taels 349; April 5th, Tls. 346; April 6th, at this time since February 27th, silver had fallen 15 $\frac{1}{2}$ Taels or $\frac{1}{2}$ nd part of the value of gold of the same weight. To speak more correctly, gold had risen Taels 15.5.0 or 4.42 %, and silver had fallen 1 $\frac{1}{2}$ or 4.35 per cent. February 8th, silver was 2/11 in exchange reports; February 16th, 2/10 $\frac{1}{2}$; March 4th, 2/10; March 15th, 2/9 $\frac{5}{8}$; March 23rd, 2/9; on April 6th, gold was 351; on April 6th, gold was quoted at 351 Taels.

In 1896, February 28th, gold was quoted at 393 to 398; on April 10th, it had fallen to 387 and 391. Silver was 2/6. May 6th, 387.5 with silver at 2/5 $\frac{1}{2}$; on August 1st, gold was 378 and silver 2/6 $\frac{3}{4}$; on November 4th, gold was 362 and silver 2/8 $\frac{3}{8}$.

On January 4th, 1899, when the Mexican cost 930 cash, gold was 361 and silver 2/8 $\frac{5}{8}$. The rise in gold was on February 28th, after just one year, 55 Taels. On May 27th, 1899, gold was quoted at 357 and the Shanghai Tael was 2s. 8d. $\frac{5}{8}$ ths; on May 28th, 1900, gold was 363 to 368. Value of silver Tael, 2s. 8d; on December 2nd, 1900, gold was 340, 338, 346 $\frac{1}{2}$; Tael of silver, 2s. 11d.

It is by the use of silver as money that this metal keeps its value for a year in relation to copper cash. It is by the fall of the value of silver in European markets that gold rises in value. Another cause for the appreciation of gold is its adoption by Japan as the standard money of that empire.

In March, 1897, when the coinage bill was discussed in the Japanese legislature, Count Matsukata said that 500,000 yen were in circulation in Hongkong and 800,000 in Singapore. The reason that these amounts were so small was that Japanese silver coins are converted into bullion for use in the interior of China. About 25,000,000 silver yen were at that time in circulation in Japan. Every individual needs subsidiary silver coins to the amount of two silver yen. The Japanese government must therefore provide silver coins to the amount of 80,000,000 yen. A reserve sufficient to maintain this proportion of silver coins is always desirable.

All through the year 1898 gold in the Shanghai market was a little over 36 times the price of silver. In May, 1899, it fell a little below 36; on May 27th, it was 35.7. At the same time the Mexican dollar was rising in copper cash value to 930. On April 19th, 1899, it rose from 910 to 920. Thus silver has risen in value and gold has fallen in value if judged by copper cash. Yet on the average in this year silver was worth only 1 in 36 if judged by the gold standard. May 29th, 1899, gold was 35.7 to 36.2; on August 25th, 1900, gold at Shanghai was 36.13 to 38; in September, gold fell to 339 and 349 while silver was at 2s. 11d.

Canton Dollars in Peking.

The Board of Revenue noticing on the new railway from Peking to Tientsin the convenience attending the use of dollars and parts of dollars, became convinced that the time was come for introducing dollars in the metropolitan currency. A memorial from the Board of Revenue on

Peking currency appeared in the *Hu-pao*, February 24th, 1898. The Canton dollar was first made by Chang Chih-tung when viceroy of Canton. It contains Taels 0.7.2 of silver weighed with the King-p'ing scales. The Board recommended the Emperor to direct the Canton viceroy to send to Peking Taels 300,000 in the form of coined dollars and parts of dollars as a part of the Canton tribute. This can be done at the Canton mint, because each month they are able to coin three million dollars and parts of dollars. The mint officers are to use the utmost care in securing correct weight and fineness in their coins.

In the programme of regulations attached to the memorial it is stated that an office will be established for changing dollars at the official value. If dollars are refused by cash shop keepers the owners can have them changed at the official exchange office.

The Carolus Dollar.

In June, 1896, the Carolus dollar began to rise in price at Wuhu. It reached nine mace. It realized that value till August 3rd, when it was 9 mace .15; at midday it was 8 mace .675; in the evening it was the same. At lamp lighting a telegram came which caused it to fall to 8 mace .1. On August 4th, at noon, it was 8 mace .65. It afterwards rose to 8 mace .7. The price of the Carolus is the guild price. The guild managers inquire into the amount of reserve and the state of the market as holding out the hope of a profit in exchange. On December 28th, 1897, the price in Shanghai was 9 mace .2; on April 6th, 1898, it was 9 mace and one candareen.

In the year 1883 taxes were paid with the Carolus dollar in the province of An-hui. The governor arranged that the tax on one mow of the best arable land should be \$1.40. It was seventy cents for second rate land and thirty cents for third rate land.

The weight of the Carolus is 8-10ths of an ounce, but it is worth more as a coin. On April 19th, 1899, it was in Shanghai current at 9-10ths of an ounce. The Mexican dollar is about the same in weight as the new Canton and Woochang dollar. They count as seventy-two hundredths of an ounce. The Mexican (January 7th, 1898) was 73, but this is through a difference in the weights used. The Mexican was at the same date 74.5 hundredths of an ounce. April 6th it was 75.75; April, 1899, it was 74; on May 29th, 1899, at Shanghai the Carolus was taels 0.9.3 in one Chinese newspaper and Taels 0.9.0 in another. It is then as a coin about 16% above its value as metal, and this difference continues steadily from year to year. On November 23rd, 1900, it was Taels 0.9.3.

Tientsin Coinage.

The viceroys are aiming to increase the use of silver dollars coined in mints under the charge of the treasurers. In the *Sin-wen-pao* in 1898 a set of new rules, promulgated by the viceroy of Chihli, was published. They are intended to promote the coining and circulation of new silver dollars. Very recently the Chen-tung-ch'êng and other cash shop proprietors consulted together and agreed to pray the viceroy to issue a set of rules regarding new silver dollars. This request they presented through the prefect and district magistrate of Tientsin. The rules are (1). That the daily price of the silver dollar in copper cash be notified publicly along with the price of silver. (2). The market value of rice and other articles of large consumption which is easy to determine, shall be publicly announced each day in dollars and parts of dollars. (3). The viceroy publicly recognizes and appoints that the new silver dollars shall be paid out and received in payment officially in all departments of the provincial administration. (4). Pawnshops have hitherto kept accounts in cash. They will

now on all pawn tickets state all sums of money in the cash currency for convenience as hitherto, but in receiving money they are not allowed to refuse to receive new dollars or cash bank notes. (5). Cash shops may issue dollar notes and cash notes. (6). Cash shops when paying out money for notes presented of less value than 10,000 cash, may pay out cash or notes or silver as convenient. For amounts above 10,000 cash a certain proportion of dollars are to be used. If they are refused the magistrate can be appealed to in order that he may assist with his authority to enforce the use of silver dollars. At the doors of all cash shops and firms the daily copper cash price of silver shall be posted for the information of the public. (7). Silver dollars being now officially recognised the Tientsin arsenal should be requested to coin a number sufficient to meet the needs of the time. (8). The arsenal makes use of silver to coin dollars. When they are given to traders it is not advisable to pay for them with notes, for then the mint will be without silver to continue coining dollars. When traders receive dollars they ought to give silver in return. But should the arsenal need notes at any time they can by special regulation receive them. Otherwise silver ought to be given in return for dollars received.

It may be noted here that the free coinage of silver is implied in these new rules. *Sin-wen*, April 6th, 1898.

Woochang Coinage.

In the *Shen-pao*, October, 5th, 1899, a letter from Wu-chang said that the new coins there made are satisfactory in regard to touch and workmanship. They are the best that are made in China. An edict was lately received stating that in future no silver coins will be made at Nanking or Anhui. The mint machinery there in use is now to be sent to Wuchang and Canton to be added to the machinery already employed at those two mints. No other mint for

silver coinage is to be established. This is a measure dictated by economy. In future the coins required for circulation in any province will all be made at Canton or Wuchang.

Taxes Paid in Chinese Dollars.

The new dollars manufactured at provincial mints are now received as revenue along with silver by weight. In conveying silver to Peking from the provinces Chinese dollars are received. Foreign dollars are not sent. (See Peking letter in *Sin-wén-pao*, January 28th, 1898). This new rule came into operation from the beginning of the 24th year of Kuang Hsü.

The treasurer of Anhui province in November, 1897, stated that salaries would be paid half in newly-coined Chinese dollars and half in other modes. The salaries of the Che-hsien, sub-prefect, and Customs staff would come under this rule.

In the *Hu-pau*, April 3rd, 1898, it is mentioned that Chinese silver is inferior in purity to foreign silver. The Anhui governor directed superintendent Pan to buy at Shanghai, for the An-ching mint, foreign silver ingots in quality quite pure to the amount of \$10,000. In Anhui province the people are accustomed to the Carolus, and the cash shops keep up its price to nine mace. Mexicans are eight per cent lower. The governor in his proclamation says the weight is the same, and that the market price of the Carolus, the Mexican, and the Chinese dollar ought to be equal. In payment of taxes the Mexican and Chinese dollar are received at one price. In April, 1898, the Carolus was in Shanghai newspapers nine mace one candareen and the Mexican seven mace five candareens. The difference then is nearly one-seventh.

By the latest information the Canton silver coins are taking firm hold in circulation in the northern part of Canton province. The prefecture of Shao-chou and the sub-prefecture

of Lien-chon there border on Honan. I learn from a missionary resident there for eight years that Mexican dollars and the Canton five-cent and ten-cent pieces are readily circulated. Cash are used but little. The Hongkong small silver coins are also favoured. This fact shows that subsidiary silver coins are of considerable benefit in the prefectures of the interior not very far from treaty ports. It is also shown that the full-sized Chinese dollar still circulates with difficulty when compared with the Mexican. The resistance to innovation met with in common Chinese life and in the transactions of the daily market, is still too strong to be overborne by official proclamations. Yet the cheapness of silver at present renders it easy to keep up the supply of Mexicans. If the subsidiary silver coins succeed through a large extent of country in attaining a wide circulation as they now are doing near Canton, copper cash will be much less used in the future and small silver coins will take their place to a large extent.

The fact above mentioned is also true of Hunan in its southern prefecture, Kwei-yang, where it borders on Canton. The subsidiary coins are also obtaining there a large acceptance. Small silver coins are more seen in the markets than copper cash. This fact also is derived from the same missionary who is resident in that vicinity. He speaks in mandarin and in the Hakka dialect.

Amount of Silver in China.

The receipts of the government amount yearly to about eighty-three million Taels of silver. The amount then of silver in circulation in China is about 830,000,000 Taels, and the value of this is about one hundred million pounds sterling. But this estimate is based on the supposition that the income of private individuals, clans, temples, and companies is not more than ten times the income of the government. The Chinese think the government receives in taxes only half per cent of

the incomes of the people. But if it is one per cent the amount of silver and other property should be eight thousand three hundred millions. It would then be about eight hundred million pounds sterling or about half the money value of Great Britain, speaking roughly.

The amount of silver circulating in India is about 1,800 millions of rupees, or speaking roughly, 900 million Taels of silver. A native of China is about as well to do as a native of India. He ought to have a larger income than a Hindoo, considering the agricultural advantages of China. Both countries lose money to Europe through the greater force of character of the Europeans. They have to work hard for less wages than Europeans. This is inevitable.

Feng Kwei-fen says in King-shi-wen-sü-pien, ch. 24, that silver in the Tang dynasty was only used as money in commerce with aboriginal tribes. Silver during the Ming dynasty came to be commonly used as money in China at about the middle of the time during which that dynasty lasted.

Increased Demand for Silver.

The Board of Revenue, according to a letter from Wuchang in the *Shen-pao* of November 29th, 1899, made six proposals for increasing the imperial revenue. 1. An addition to the salt contribution. 2. Increase in the duty on native and foreign opium. 3. The increase on tobacco and wine duties to twice the present amount. 4. Duty on deeds of sale of land and houses. 5. Diminution in the expense of conveying silver to Peking. 6. Silver should be sent to Peking in place of silks and satins from the three imperial factories at Nanking, Soochow, and Hangchow.

The tendency of legislation has been for many years to transmute the regular grain tribute into a silver tax.

Silver Import During Recent Years.

The following figures are taken from the Customs Returns of Trade :—

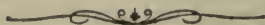
YEAR.	NET IMPORT OF SILVER.	GROSS IMPORT OF SILVER.	SHANGHAI NET IMPORT.
1899	1,271,444	.....	12,312,853
1898	4,722,025	.....	9,000,000
1897	1,641,500	.....	7,958,937
1896	1,720,000	.....	.....
1895	30,585,000	.....	.....
1894	26,389,000	37,120,000	.....
1893	10,804,000	20,687,000	.....

Total net import 83,232,000 during the years 1893 to 1900.

In the year 1892 there was an export of Taels 4,825,000.

The main check on the demand for silver is found in the desire felt for copper cash at a distance from the ports where foreign trade exists. At Newchwang in 1896 the value of trade passed the record to the extent of five million taels. Purchases of goods made in the interior were as usual paid in copper cash. Copper cash were used in payment for transport to Newchwang. The value of cash rose in consequence, and that of silver fell.

In 1899 at Hankow silver was in demand. Haikwan Taels 11,362,078 were imported and Taels 6,370,221 were sent away. This last amount included Taels 4,633,471 in the shape of coins struck at the Wuchang mint. Copper has risen in price, and comparatively few cash were made on this account. To make silver coins is more profitable, because silver is cheap. Silver must then continue to rise in price.



PART IV. GOLD.

Gold in Ancient Times.

In the Han dynasty gold was cheap, because Buddhist image worship had not then created a demand for this metal. Consequently it was in use for paying salaries and for market purchases. Gold is mentioned in A.D. 1375 as ten times the value of silver. A few years later ten piculs of rice were purchased with one tael of gold. This quantity was doubled in 1397 by a special enactment of the Emperor. In 1413 thirty piculs of rice were ordered by authority to be the equivalent of one tael of gold. X

Before Japan was open to foreign trade gold and silver were the same in value. This anomaly was caused by the absence of foreign intercourse.

We learn from the Wei-shu in the first year of Hing Kwang, A.D. 454, that when five large Buddhist images were cast in China, each sixteen feet in height, 25,000 catties of copper in all were used, and gold leaf would be glued over the whole surface of these images. A few years later an image of Buddha, forty-three feet high, was made. Copper weighing 100,000 catties was used. The gold required was 600 catties. Bronze casting was practised in India before it was common in China. The Hindoos learned it from countries further west. We have a remarkable example of gold casting in Exodus xxxii. 24, B.C. 1491, according to Usher's chronology. Gold, silver, and copper images of Buddha would be cast in India from about B.C. 400 continuously for a thousand years during the time of Buddhist prosperity in that country.

Gold leaf was profusely employed in the palaces of the golden dynasty. When the Mongols conquered this dynasty, very much gold was used in Buddhist temples. Kublai built the Wan-an-si (萬安寺) and ordered it to be richly ornamented X

with gold leaf, both on the images and on the windows and walls.

Buddhist liturgical books were written out with gold leaf.

Increased Production of Gold.

Gold is now produced to a larger extent in the South African province of Transvaal than in any other country. The United States of North America were for many years the chief producers of gold, but they now stand second to the Transvaal province. Australasia follows, and these three countries together yield more than three-fifths of the world's supply. Russia is the fourth gold producer, and it yields about one-tenth of the whole.

Waste of Gold.

An ancient writer (草木子) says that when gold is made into gold leaf it cannot be restored to its original condition. The beating out of gold leaf is highly wasteful. The Emperor about A.D. 490 forbade the manufacture on this account. A similar edict was promulgated in A.D. 1008. Neither gold nor silver were allowed to be in this form wasted. In A.D. 1040 a special edict made it criminal to glue gold leaf on Buddhist images.

In the year 1167 an edict forbade gold thread to be used on clothing. Those who wove and sold such clothing were treated as criminals and prosecuted.

In the year 1311 the Mongol Emperor published an edict forbidding the manufacture of gold leaf, of liquid gold to use in washing various articles, and gold thread woven into ornaments of dress.

The Chinese, when gold is beaten very thin, attach it to Buddhist images by means of gum. When gold is used as money it is in the form of bars or ingots.

In the Tang dynasty gold leaf was used to paste laudatory sentences and titles on sacrificial tablets. Kieu-tang-shu,

23, 13 (下). The tablet was placed in a stone chamber called kam 石感; kam is the camera in which the tablet is placed. The tablet shrine is 玉匱 yü-kwei, marble shrine. This word kwei for cot is our cot or cradle. The 玉牒 yü-tiê tablet of jade was cut into for the inscription. The characters were then filled in with gold leaf. All such words as tiep, tablet; cot, kam, are necessarily the same as the corresponding English words.

Gold in Circulation in Century XII.

About A.D. 1175 it is stated in the Su-chow-fu-chi, a brigadier stationed at Soochow, named Han Yen-ku, ordered the execution of a Shoopan in the same city for receiving bribes. (Chap. 145, page 44.) The gold he had in his possession was enormous in amount—gold leaf, 29,250 catties; gold coins, 60 strings; gold shoes, 15,720 taels; five pecks of small gold lumps; gold Lohans, 500 in number, each of them two feet five inches high; gold wine cups weighing 6,730 Taels; gold hair pins and bracelets, 143 in number; gold waist belts, 12. Other articles were in proportion. All this gold was confiscated. Brigadier Han was about this time killed in the war with the Kin Tartars.

It appears from this entry in the Soochow topography that the quantity of gold in circulation in the 12th century was immense.

Gold in the Jehol Country and elsewhere in Chihli Province.

Shou Yin, General of Banner at Jehol, reported in the *Peking Gazette* November 15th, 1898, the state of the gold mines under him. The locality is named Kon-liang at Jehol, with Shwang-shan-tsz not far away. During the first four months of 1897 they yielded in gold the value Taels 19,490.4.1. If we divide this by twenty-four, there will be Taels 8,133.8.8 for the public revenue, the same sum for the shareholders, and the remainder, amounting to one-sixth, is to be given to the Wei-

yuens in charge. The government receives five-twelfths of the proceeds. There are also gold mines at Chao-yang, at Ping-ch'inen, at Feng-ning, and at Lan-p'ing.

Gold in Moukden Province.

On December 3rd, 1898, the *Shen-pao* printed a memorial from Iktanga reporting the state of gold mining in the Fêng-tien province. The mining failed, and was abandoned as ineffective in some localities. When Iktanga assumed the governorship (chiang-chün) he advised the purchase of machinery. He now complains of limited capital. The search for gold is conducted in thirty or more localities. Some are still hopeful, viz., T'ung-hua (S.E. 750), K'wan-tien (660), Hwai-jen (S.E. 660), T'ie-ling (N. 130), K'ai-yuen (N.E. 200), Hai-lung-ch'eng (N.E. 480 *li*). These places are to the north east of Moukden at a distance of about a hundred or two hundred English miles. The edict orders the mining managers to continue their efforts at these localities with the help of shareholders. Mining shares are managed officially, as is the case with the China Merchants' Steam Navigation Company. The land belongs to proprietors and has to be bought from them. In the Amoor province the Mo-ho mines are worked in unoccupied country, and all the land belongs to the government. The mines now being worked are near Hing-king. The eighty miners dig out 2,000 catties of stone containing gold in a day. In all they have collected 46,000 catties of stone, which will, when treated by the native method, yield seven candareens a picul. It is estimated that fifty thousand Taels of silver will be needed from shareholders to work this ore. The profit will be greater if foreign crushing machinery is purchased. The machine shops will be expensive to build. The Mo-ho mines have been worked for more than ten years. The methods there in use will be adopted here. After payment of salaries and dividends, the residue will be added to the

revenue. During the two years—1896 and 1897—only 200 Taels of gold have been realized. This does not leave much after deducting interest of loan (墊款). In the five localities—T'ung-hoa, Hwai-jen, etc.—there are eight mines. The result has been an amount of gold worth 10,000 Taels of silver.

Gold in Darbagatai.

In 1881 the Manchu Governor-General asked the Emperor to allow gold mines to be worked in Darbagatai. The request was refused.

Gold near Urga, in Uliassutai and in Eastern Mongolia.

The *Shen-pao* of July 14th, 1899, says that the Manchu Governors of Urga and Uliassutai are consulting on the levy of a tax on those persons who wash for gold within the Chinese frontier. The region producing gold is not only that part which China formerly ceded to Russia. Gold is found within the frontier line running between Urga and Kiachta. It has been the habit of the Mongol chiefs secretly to allow Russians to search for gold. The secret connivance should become an open permission, subject to a tax on Russian gold hunters. On the 9th of the month (Western) a Wei-yuen was sent to the points, where gold is collected, to make inquiry and report.

In the *Shen-pao* of February 9th, 1900, it is stated that at a gold mine granted to Russia several Russian soldiers were killed by Lamas. The Russian minister in Peking demands from the Chinese government possession of the land containing the mine and pecuniary compensation for the lives of the soldiers. The mine is near Urga.

In the *Peking Gazette* of July 10th, 1900, there is a memorial from Prince Leng, a Manchu named Kong-sang-nor-bu, stating that in order to support the troops by funds raised on the spot, as he had been ordered to do by an edict of

the Empress, January 8th, 1900, he has acted on his instructions. He belongs to the Horchin Jasaktolo division of Mongolia. He is a hereditary prince of the second rank. The localities mentioned by him where gold is found are Ho-lien-kow, the greater and less T'saw-nien-kow, Lan-hu-kow, Chukia-kow, and Pan-ch'ian-tsü. Gold ore is also abundant in other places near. Natives and foreigners struggle to elude government inspection. The petitioner sends competent inspectors, who assemble the Chinese shareholders and arrange with them to follow the old Chinese methods in opening mines. By this system an unlimited number of soldiers may be maintained and many natives obtain support. The gain to the shareholders is the same which is allowed by the rules of the Peking head office for railways and mines, that is to say, one or two-tenths, and twenty-five parts (in a hundred) of the remainder are applied to support the troops. The memorial asks for approval, and it is granted accordingly. *Chung-wai-pau*, December 23rd, 1900.

Gold in Szchuen.

Mr. Archibald Little in the *North-China Daily News* of December, 1897, says ; About half way between Sung-pan and Lung-en prefecture, near a small picturesque village called Siao-ho-ying (small river encampment), I noticed a thick yellow muddy stream which I had to ford on my pony. This I at once saw must come from gold washing, and I distinctly traced a vein of white quartz rock in the dark shales through which the stream has here cut out a deep gorge. This vein and several others I saw later on were all cut through by the stream. I followed the side stream for about 300 feet where the shifting shale path ascends the precipitous slope of the river bank till I found a dozen Chinese engaged in quartz mining. They were pounding the quartz with a pestle and mortar ; the mortar of stone, and the pestle of wood, iron-shod,

The mortar was about three feet in diameter and the heavy pestle was worked by four men. They said they gained 100 to 200 cash each a day on the average, but sometimes a lucky day gave them 1,000 or 2,000 cash. Here is a rich field undeveloped.

To show the extent of this field Mr. Little points out that all along the Tibetan border, from Sung-p'an to Ta-chien-lu, auriferous quartz is present in great quantities. He writes hopefully of the result of abundant gold mining. It would be the cure for the poverty and opium drunkenness from which Szechwen now suffers.

The *Sin-wen-pao* of April 13th, 1898, says that at present in China the locality where the most gold is found is at Mo-ho in Manchuria. The specially rich sands are found at a place bearing the name Birch Bark Valley, Hua-p'i-kou. It is about three miles from the Kuan-yin mountain.

The *Chung-wai-pao* of December 2nd, 1898, has a memorial of the Viceroy En-tsê and Fu-tu-t'ung-sa-pao stating the present condition of gold mining in Hei-lung-kiang, at the Tu-lu River (都魯), close on the north frontier, adjoining Russian territory. It is 1,000 *li* from Hu-lan, 600 *li* from San-sing, and 400 *li* from Lou-shang, in the midst of an almost uninhabited country. In order to engage miners it is necessary to store grain for their sustenance. In 1897 the government, in an edict regarding gold mining, sent an officer to Hei-lung-kiang, which he reached in sixteen days.

Gold Mines at Mo-ho.

In the *Shen-pao* of June 14th, 1899, a petition was printed regarding the Mo-ho gold mines. It is addressed by the Manager, Sü Meng-siang, to the Chihli Viceroy, who has charge of the entire Manchurian coast as well as that of Chihli and Shantung. The object of the petition is to obtain a change of system. The Mo-ho River is in the Hei-lung-kiang or

Amoor province, and it flows into the large river at about four degrees east of Peking. The output of gold is not equal to the expense incurred. The petitioner states that as there is a falling off in the amount of gold obtained he would recommend a change of system. A portion is assigned to the support of troops as directed. The remainder is due to the shareholders and the official managing staff. The 200 miners must be superintended carefully. By the new rule the dividend was not to be over 20 % of the profits. In 1895 the output was 900 Taels. Twenty per cent of this would be about nine Taels each man. For two years past no distribution has been made. The output appears to have dwindled to nothing. At first the expenditure amounted to Taels 130,000 and later on to Taels 160,000. In the year 1895, 190,000 Taels were expended, and in 1897 the expenditure reached Taels 300,000. The *Wei-yuens* at the mines had to be paid and the expense of conveying the gold required to be met.

In the financial edict of July 11th, 1899, the officers of all the provinces are called on to use strenuous exertions to increase the revenue. The production of gold at Mo-ho is spoken of as having recently been less than before. The Viceroy of Chihli is called on to use his best exertions to increase the yield of gold at Mo-ho and at Chien-an in the Yung-ping-fu prefecture, where the Chihli province stretches out to the eastward. The discovery of gold there is quite recent. On account of the very satisfactory output of gold the Viceroy is directed to prepare promptly a set of rules for the new mines in that part, with a view to aid the funds of the army.

In the *Chung-wai-pao* of August 3rd, 1899, there is mention of the output of the Mo-ho mines. From June, 1898, to January, 1899, the amount of gold was 6,806 gold Taels. At Kwan-yin-shan it was 9,125 gold Taels. Changed for silver the amount realized was Taels 426,600. The gold diggers

receive six-tenths. The expense of the superintending office and the military guard was 159,240. The remainder, Taels 10,400, was applied by the Manchu Governor-General to the support of troops in the province. Gold is changed on the Mo-ho mines at the rate of 268 Taels silver to one Tael gold, if we can trust the correctness of this account.

The *Shen-pao* says (October 12th, 1900) a company works gold in the Mo-ho river, and at first there was no dividend. This was in 1898. The amount and value of gold collected were reported in a printed pamphlet, and included eight months' working. In 1899 the value in silver of the gold collected was Taels 45,780. Six-tenths of this were applied to the support of the army. The remainder, four-tenths, amounted to Taels 18,312.

In 1866 gold was not yet found at the Mo-ho river. In that year searchers for gold were scattered over the region watered by the rivers 葦沙, 色勒, 穆奇, and 漂河, Wei-sha, Sê-tê, Mu-chi, Pian-ho, and at Birch Bark fields (樺皮甸子). By an edict in November they were allowed to receive land without payment for two years. The government provided waste land for a multitude of diggers for gold who might not wish to return to China. In the third year of occupation they would pay a tax of 110 cash a mow. They were exempt from a license tax. In ordinary cases a certain sum is paid to magistrates for the right to occupy waste land.

The *Chung-wai* of December 24th, 1900, says the output of gold at the Mo-ho river was in 1888 and 1889 each 9,000 Taels; in 1890 and 1892 each 85,000 Taels; in 1891, 12,000 Taels; in 1894, it was 108,000 Taels; in 1895, 100,000 Taels; in 1896, 300,000 Taels.

After that time the rule was that the government appropriated six-tenths of the output. This would amount to several hundred thousand Taels. If the one gold river yields so large a profit what will be the result when gold is worked

for in a number of different localities? He mentions in Manchuria (岫巖州) Yu-yen-chow, Hwai-jen, Tung-hwa, Kwau-tien, Fu-chow, Ta-lien-wan, all in the Monkden province, beside many places in Kirin and Hei-lung-kiang as having gold.

In the *Chung-wai* of July 24th, 1899, it is stated that the company for collecting gold, where there is gold sand, has had its difficulties. Manager Wang was not acceptable to the people. The Chamber of Commerce at Chungking has been asked to divide the work of the company between two companies, and to request the Viceroy to allow the coal mining company to commence operations. To this the Viceroy consented.

Production of Gold in the Chinese Provinces.

The Red Book mentions gold in Kan-su province in K'ung-ch'ang-fu (鞏昌), in Ching-yang-fu, and in Si-ning-fu. Farther west it is mentioned in Ili. In Hupei, gold occurs in I-chang-fu, on the borders of Szchwen. In Hunan, gold occurs at Chang-tê-fu, on the west side of the Tung-ting Lake.

X In Szchwen, gold occurs in Ch'eng-tu prefecture in Panning-fu, belonging to the northern superintendency of the province. It also occurs in Kw'ei-chow, belonging to the eastern superintendency and bordering on the I-chang-fu prefecture in Hupei. It also occurs in Chia-ting prefecture, 200 miles south of Ch'eng-tu.

X In Canton province gold occurs in Chao-ch'ing-fu on the West River, and in Lien-chow, which borders on Annam and forms the extreme western prefecture of the province. Gold also occurs on the island of Hai-nan.

✓ In Kwang-si, gold occurs in four prefectures—in Lien-chow, in Sz-en, in Ping-lo, and in Sin-chow. These cities are all on the upper West River, excepting Ping-lo, which borders on Canton province. Ping-lo is the south-eastern prefecture of

Kwang-si province. Out of the thirteen prefectures into which Yünnan is divided two of them on the western side—Li-kiang and Yung-chang—have the reputation of producing gold. Kwei-chow province is said to possess gold only in the Tsun-i prefecture.

The Red Book statements in page 80 are old. They are repeated from year to year, and the entries now found were those of the reign of Yung-cheng, when salaries to men in the civil service were first added to the old pensions, which date from the Han period.

The *Sin-wen-pao* of February 23rd, 1900, says gold mines must be worked in China in order to enrich the country. The foreign debt of Taels 120,000,000 obliges China to pay from the Legin and the Customs' revenue Taels 2,500,000 per annum. On account of the heavy interest payment cannot be postponed beyond date for even a day. The Customs' revenue in each province is short of the expenditure. Hence we need to work gold mines and increase exports to meet these new responsibilities. Shall we then become a gold country like India and Japan? This we cannot do till we have gold of our own. To buy foreign gold would increase the world price of gold in proportion to the new demand and our difficulty would be increased.

If our exports were sold for gold the price would rise and the demand would be checked. We cannot afford to see the demand for our exports decline.

Gold in Corea.

During the last six years, says the Osaka *Asahi*, the gold bullion exported from Corea amounted in value to 10,365,000 yen; in 1894 the figures stood at 950,000.

In 1899 the value was 3,185,000 yen. This increase is due to the working by American capitalists of the Unsan mine. That mine produces gold which is valued at 10,000 yen. Some Germans are seeking the sanction of the Korean government to work mines at Kong-ch'on in Kang-won-do and at Son-ch'on in Phyong-an-do. The government is planning to



secure the expected profit from certain promising mines for itself by annexing them to the Imperial household.

Export of Gold from China.

In 1898 the net amount of gold exported was valued by the Customs at Taels 7,703,843. In the same year there was a net import of silver amounting to Taels 4,722,025.

In 1899 the net amount of gold exported was, in value of silver, Taels 7,639,779. The net import of silver was Taels 1,271,444 ; of the gold exported the bulk went to Japan and Taels 2,468,151 to Europe.

The export of precious metals from 1816 to 1840, caused mainly by the opium trade, amounted to \$55,780,016.

Appreciation of Gold in 1897.

A trader, Hsü Pin-nan, stated in the *Shen-pao* newspaper in August that on March 24th he agreed to sell 1,125 bars of gold at Taels 341.50 to 335.5 each bar. He had bought them at Taels 355.5. He lost eleven Taels of silver on each bar. The whole loss amounted to Taels 12,375. The Japanese adoption of gold currency caused gold to appreciate in terms of silver and occasioned him this loss.*

In October, 1897, gold was at 38.0, that is, thirty-eight times the price of silver. On December 11th, it was 36.0. In 1892 gold was 25.3 ; in June, 1893, it was 27.4 ; in February and March, 1895, it rose to 35.5 ; on May 7th, 1897, it was 36.5 ; in August, 1897, it was 39.5 ; in January, 1898, it was 37.8 to 39.0 ; in April, 1898, it was 38.7 to 39.4 ; in April, 1899, it was 36.2 to 36.8 ; on June 3rd, 1899, gold was 35.7 to 36.5 times dearer than silver. In fourteen months it has fallen from thirty-nine times its silver value to thirty-six times. June 19th, 1899, gold was 35.7.5 ; on July 18th, it was 35.8 to 36.6 ; on July 28th, 35.7.5 to 36.2.5 ; on August 17th, 35.9 to 36.7 ; on

* Gold bars vary in weight from ten taels to fifty. The average loss is meant. Most bars weigh about 10 Taels.

September 16th, 36.3 to 36.8; on October 13th, 37.0 to 37.5; on November 21st, 36.1 to 36.7; on December 9th, 35.3 to 36.1.

In the year 1900: May 28th, 36.8 to 36.3; June 26th, 36.2 to 38.2; July 26th, 38.0 to 37.1; August 24th, 36.0 to 36.9; August 25th, 36.3 to 38.0; August 30th, 36.5 to 38.0; September 1st, no sale, 36.5 to 38.0; September 3rd, no sale, 36.5 to 38.0; September 8th, 35.6 to 37.2; September 10th, no sale, 35.6 to 37.2; September 11th, no sale, 35.6 to 37.2; September 12th, no sale, 35.6 to 37.2; September 13th, 33.9.5, 34.9 to 36.5; September 15th, 33.9, 34.9 to 36.5; October 23rd, 33.6 to 36.0; October 31st, 33.6 to 39.3; November 5th, 33.6 to 35.3; November 14th, 33.6 to 35.5; November 25th, 33.6 to 35.5; November 27th, 33.6 to 34.7; November 29th, 33.6 to 34.0.

Fall of Gold in 1900.

The disastrous movement of the Boxers has had a powerful effect on the price of gold and silver. Silver was wanted to enable owners of gold to travel. The roads were traversed by refugees who carried silver with them to pay expenses. They could not obtain loans of silver from cash shops, banks of transmission, or silver banks. Refugees were therefore obliged to sell gold ornaments for silver. The gold shops reduced the price of gold to obtain more of it. In this way gold fell from thirty-six Taels to thirty-three Taels during September 8th to 13th.

A gold shop (同豐永) advertised in November inviting owners of gold to sell to them. They sell the best gold in bars, shoes, and leaf. Since the spring of 1900 the gold with which they parted was chiefly bars and leaf. Out of regard to their fair name they never sell any goods but the best. They invite any one possessing their gold to bring it; they will give more than the market value for it.

The reason of this is that gold is growing scarce, and will now rise in price.

The fall of gold from thirty-six Taels of silver to thirty-three Taels was definitely stated in the Chinese native exchange on September 13th, 1900. Previous to that day for a fortnight the price of gold had been uncertain, and no sales were effected. On September 19th gold was 34.6; on November 5th the quotation was 33.6. It remained steady at that price till December 29th, 1900. This fall may be better explained as a rise in silver due to an increased demand in China. On December 29th the lowest price of gold was 33.6 and the highest 35.5, that is to say, one Tael of inferior gold sold for thirty-three Taels and six-tenths of silver. The best gold required $35\frac{1}{2}$ Taels of silver in payment.

Price of Gold in Kirin.

Rice is rising in value at Kirin. Each picul costs 37,000 cash in the 33.0 currency, or 5,600 cash at Shanghai; gold leaf, thirty-seven to thirty-eight silver Taels per Tael; best gold (標金), thirty-five to thirty-six silver Taels per Tael; sand gold made into bars, thirty-two to thirty-three do.; sand gold, twenty-eight to twenty-nine. *Canton Trade Journal*, quoted in *Shen-pao*, January 19th, 1901.

Price of Gold in the 18th Century.

The Tung-hua-hsü-lu, chapter 37, page 20, column 28, says that in A. D. 1782 a quantity of gold was confiscated in Chekiang province. It was 4,748 Taels in weight. The Viceroy sent silver to Peking instead of gold, and it amounted to Taels 73,594. This is a proof that exchange was then at $15\frac{1}{2}$. This fact is noteworthy, because this was the gold value of silver in Europe in the last century. The ratio between gold and silver in Europe was in 1801 to 1810, 15.61. Foreign trade accounts for the ratio being the same in Europe and in Asia during the latter half of last century.

There is another mention of the price of gold in the same history, chapter 37, page 27, column 33. It says the best gold,

(兼金) chien-chin, changed for twenty times its weight in silver. This shews that in 1782 gold varied its price according to quality between $15\frac{1}{2}$ and 20 times that of the same amount of silver.

In A. D. 1772, chapter 28, page 13, of the same history, 2,000 Taels of gold are valued at 20,000 Taels of silver more or less. This gold belonged to Tsien Du, of Kiang-si province.

Unit of Gold in Japan.

When gold is said to be twenty-four carats fine the meaning is pure gold. The unit of money is gold of twenty-two carats fine, weighing 123.274 grains. An ounce contains 480 grains. To be of twenty-two carats fineness is to contain $\frac{11}{12}$ ths pure gold. This is the standard in Great Britain. In Japan the unit is two fen. The old Japanese five-yen gold coin weighs 2.2221 momme of 900 fineness. It was changed in 1897 to a ten-yen piece in the new coinage. The old ten-yen gold coin has become a twenty-yen piece in the new coinage. The silver subsidiary coins in Japan remain as they were. By the new coinage law in Japan the fifty-sen piece is still fifty sen. Only the gold coins are doubled in nominal value. The Japanese yen is now always two shillings and a half penny or 24,5822 pence.

In the *Shen-pao* of February 9th, 1900, it is said that Japan has sent an officer to London to purchase gold to the value of 20,000,000 silver dollars. There is not sufficient reserve in Japan. This is felt on account of the circulation of gold coins. Under the new currency *régime* gold being the only legal tender, more gold is necessary to keep as a reserve. This purchase, it may be expected, will raise the value of gold in London.

Unit of gold in India.—The *Japan Mail* of July 15th, 1899, says the Indian government currency committee has reported favourably on the adoption of a gold standard in India—the sovereign to be legal tender and the rupee to pass for 1s. 4d. For a long time now the rupee has been steady at 1s. 4d., so that there is no abnormal stringency. Before

coming to this decision the committee took the evidence of the leading bankers and financiers. British sovereigns will now be current in India along with rupees.

Melting Gold, etc.

An amalgam of gold and quicksilver is made. Silver vessels are washed with the amalgam and become white. Under the blow pipe the quicksilver disappears and the gold remains. Repeating the process, at last the yellow colour of gold is obtained.

Gold of the shape of melon seeds and wheat bran is found in sand. Excellent gold is found with cinnabar. Gold is met with at ten feet deep from the surface on mountains. Above it may be noticed brown, serge coloured stone. About A.D. 1100 at Yi-yang, near Changsha, in Hunan, a piece of gold was found weighing forty-nine catties. It was taken up from the bed of the Yi-yang river (物理小識).

When gold is found with lead, it is separated by heating and washing. When gold is inclosed in silver ore, three-tenths of a Tael of Japanese sulphur to every Tael weight are used in the melting pan. When cold, break the pan ; the gold will be at the bottom ; the silver will float in black flakes above. See Wu-li-siau-shī. The melting pot used in Peking is made of a kind of earth of a reddish white colour (玉泉泥). The vessels made of this earth are very thin, whether in the form of a can or a bowl ; pass heat quickly, and are easily broken.

Japanese Finance.

When the gold standard was adopted in 1897 it was feared that the amount of silver yen presented for payment would be too great and that the gold held by the treasury would not be sufficient to meet demands. In fact only eighteen million *yen* were presented from abroad and thirty-four millions in Japan. Total fifty-two millions. Of this amount 27,600,000 were used for subsidiary coins and forty-seven

millions were sold at Hongkong, Shanghai, Singapore, and elsewhere. The loss incurred was 5,700,000 *yen*, but there was a profit on the subsidiary coinage of 5,790,000 *yen*, and the net result was a gain of 90,000 *yen*. The period 1867 to 1871 was the period of currency confusion. The mint was established at Osaka, and silver monometallism was adopted. In 1870 Marquis Ito advised the adoption of a gold standard, and depreciation set in. A paper currency was issued nominally redeemable in gold. The paper fell to a discount of eighty or ninety per cent in 1881. This was the period of inflated currency. The period from 1881 to 1885 was marked by financial adjustment. The interval from 1886 to 1897 was the period of preparation for the gold standard.

On September 22nd, 1900 (*Japan Mail*) the following account to September 15th of the Bank of Japan was made public :—

<i>Dr.</i>			
Share capital fully paid up	...	...	\$30,000,000
Reserve fund and other liabilities			
to shareholders	...	...	16,429,189
Convertible notes issued	...	...	191,946,274
Government deposits	...	...	41,619,797
General deposits	...	...	7,867,448
Exchange liability	...	...	8,859
Total	...	...	<u>\$287,867,569*</u>

<i>Cr.</i>			
Discount notes	...	...	\$69,246,285
Foreign account notes	...	...	9,651,495
Loan to government	...	...	22,000,000
General loans	...	...	57,037,264
Exchange liability	...	...	1,844,891
Government bonds	...	...	52,433,711
Property	...	...	2,168,741
Bullion and Specie	...	...	73,485,179
Total	...	...	<u>\$287,867,569†</u>

* Some errors in the items have occurred in the *Japan Mail*. Add four in some one item, and 4,000 in some other item.

† Add three in some one of the credit items.

ISSUE ACCOUNT.

Bullion and Specie.

Gold	...	...	...	...	\$68,714,715
Silver	...	...	...	...	3,000,000
Total					<u>\$71,714,715</u>

Securities.

Government bonds	...	...	...	\$26,595,204
„ certificates	...	...	...	22,000,000
„ bills	...	...	...	10,180,286
Commercial notes	...	...	...	62,015,173
				<hr/>
Total	...	...	...	\$120,790,663

From this return it appears that specie reserve in the Bank of Japan, compared with the preceding week, varied as follows :—

Gold	...	...	...	Decrease, \$150,500
Silver	...	...	...	No change.
Government deposits	...	...	...	Decrease, 1,526,234
General loans	...	...	...	Increase, 788,878
General deposits	...	...	...	„ 2,241,109

In the *Japan Mail* of December 3rd, 1900, the corresponding items in the account of the Bank of Japan as compared with those of the previous week are stated in the following manner:—

Gold	...	...	...	Increase, \$103,470
Silver	...	...	...	Decrease, 300,000
General loans	...	...	...	Increase, 988,944
Government deposits	...	...	...	Decrease, 248,767
General deposits	...	...	...	Increase, 263,889

In the *Japan Mail* of July 1st, 1899, the figures were:—

Gold	...	...	...	Increase, \$322,529
Silver	...	...	...	No change.
General loans	...	...	...	Increase, 161,144
Government deposits	...	...	...	Decrease, 1,293,822
General deposits	...	...	...	Increase, 514,657

Gold is then slowly leaving the country at present.

Fall in Value.

In 1895 gold ceased to rise in value, and a fall in value commenced. The cost of producing it has become less than formerly, and the quantity brought to market is much greater. Silver, until legislation was directed against it, was stable in value, while gold was unstable and constantly rising in value. Sauerbeck's index numbers for gold are, for 1867 to 1877, one hundred; in 1892 the index number for gold is sixty-eight; in 1895 it was sixty; in August, 1898, it was sixty-four. The output of gold from 1852 to 1871 was twenty-five millions *per annum*; in 1893 it was nineteen millions; in 1894 it increased; in 1896 it was forty-five millions; in 1897 it was fifty-one millions. Fall in value is irresistible, although through the adoption of a gold standard by several countries the fall has been delayed. In a free currency the three factors of value are: cost of production, supply, and demand. Mr. E. F. Marriott published these views in the *Fortnightly*, October, 1898. Now that India has adopted a gold currency there will be a tendency to delay the fall in value of gold as the effect of the increased demand.

On January 15th, 1901, the price of a silver Tael was $2/10\frac{1}{8}$ th. In the autumn of last year gold had fallen in value three pence, but on this date it has risen a penny nearly.

In Japan December 8th, 1900, the dollar was $2/0\frac{1}{4}$; on September 22nd, 1900, it was $2/0\frac{1}{4}$; on September 3rd, 1898, it was $2/0\frac{1}{4}$. Silver from London was $\frac{1}{16}$ th higher. On October 14th, 1899, there was no change in silver. The dollar was $2/0\frac{5}{16}$ ths.; on January 3rd, 1900, $2/0\frac{1}{4}$; on November 8th, $2/0\frac{5}{16}$ ths.; on September 27th, $2/0\frac{1}{4}$, but silver in London was $\frac{1}{8}$ th higher; on September 20th, $2/0\frac{1}{4}$, but silver in London was $\frac{1}{16}$ th higher and discount also $\frac{1}{16}$ th higher; on September 8th, $2/0\frac{1}{4}$, but silver from London was $\frac{1}{4}$ th higher and sterling was $\frac{1}{8}$ th higher, causing weaker rates in China; on August 25th, $2/0\frac{1}{4}$, but silver from London was $\frac{1}{16}$ th higher and discounts down to

$3\frac{1}{2}$ and $3\frac{1}{4}$ per cent. Local rates were steady ; on August 11th, $2/0\frac{1}{4}$, but silver from London $\frac{1}{8}$ lower and discount $\frac{1}{8}$ th easier ; on August 17th, $2/0\frac{1}{4}$, but silver from London was $\frac{1}{8}$ th lower and discount easier at 4% and $3\frac{7}{8}\%$.

It appears from these data that silver rose and gold fell about August 25th, 1900. This phenomenon lasted for six weeks. On October 11th, silver in London began to fall again. It was $\frac{1}{8}$ th lower and discount $\frac{1}{8}$ th higher. Local rates in China were lower accordingly. The Shanghai native newspapers did not understand the reason of the fall in the price of gold and ceased to record the price of gold in the daily exchanges. The *Hu-pao* alone continued to record gold prices, probably because the Japanese who own this paper knew the steadiness of gold value in Japan and were not staggered by its unsteadiness in September last in Shanghai. The *Hu-pao*, January 19th, 1901, gives inferior gold 33.1, good gold 34.5, exchange price of best gold 36.0. The *Hu-pao* on September 10th, 1900, registered the three gold prices : first as uncertain, there being no sales ; 2nd as 35.6 ; and 3rd as 37.2. *Hupao*, February 11th, 1901, gold pieces were 35.45, 37.5, 36.0.



PART V.
CONSISTING OF
EIGHTEEN ESSAYS ON CHINESE CURRENCY.

Formerly published otherwise and here reproduced as furnishing additional
information on the subject of which this volume treats.

Preliminary Note.

During the last five years the export of black and green tea has been much the same each year. The fall in tea export seems to have been arrested. Silk export is diminishing, but when the disease among the worms is firmly checked by the Pasteur method this trade will recover lost ground. The export of bristles, fans, hemp, feathers, hides, mats, oil, rhubarb, sesamum seed, skins, tobacco, and wool is advancing. At the present time these, with straw braid and some other articles, show how the northern and western provinces are taking a share in increasing the import of silver. The foreign articles for which there has been lately an increased demand are such as flour, kerosene oil, matches, and soap. Such goods of foreign origin as candles, paint, glass, perfumery, aniline dyes, clocks, and watches are in constant demand. The import of silver must then continue unchecked to satisfy the wants of trade.

[The principal Chinese works which have been made use of in writing the following eighteen essays on Chinese Currency are the following:—

“Shih-chi,” of Sz-ma-chien, B.C. 100.

“Han-shu,” of Panku, A.D. 80.

“Sung-shih,” History of the Sung dynasty, about A.D. 1300.

“Chin-shih,” History of Golden dynasty, written about A.D. 1300.

“Yuen-shih,” History of the Mongol dynasty.

“Mung-chi-pi-tan,” by Shên-kwo, about A.D. 1090.

“Wen-hsien-t'ung-k'ao,” Cyclopædia of 13th century.

“Pei-wen-yün-fu,” Dictionary of Citations of the reign of Kwang Hsi.

✓ “Yuen-chien-lei-han,” Cyclopædia of the same reign.

“Ching-shih-wen,” a collection of memorials and essays by official persons of the present dynasty, published about sixty years ago.

“Ching-shih-wen-hsü-pien,” a supplement to the preceding, and consisting of memorials and essays by official persons during the last sixty years. Recently collected and published at Shanghai.]

Paper and Silver Currency.

The use of seals had extended much in China about two centuries after Christ, and this led gradually to stamping silk and skin for various purposes. Just at that time the manufacture of paper was introduced from the West, and it was found to be an article capable of many common uses. This led the Taoists for example to multiply charms rapidly by stamping them on paper to sell to the superstitious, either to hang on their doors or to carry with them when travelling. Commercial accounts were written on paper for convenience, and merchants and shopkeepers provided themselves with seals for stamping. They came into the habit also of stamping the paper before or after they wrote their figures upon it. This was the state of things when the establishment of the Caliphate on the Euphrates gave an impetus to eastern trade. The Chinese in the eighth and ninth centuries made much more silk than before for foreign countries. The spread of the silk manufacture in Western regions did not put an end to the demand for the silk goods of China or for the unwoven silk. Neither Europe nor Western Asia could manufacture enough of their own silk to meet the demands of the market. The historian Robertson says of this period that the silk of China was purchased in Shensi, the westernmost province of that empire, and conveyed thence by caravan in a march of

eighty or a hundred days to the banks of the Oxus, where it was embarked and carried down the stream of that river to the Caspian. After a dangerous voyage across that sea and ascending the river Cyrus as far as it is navigable, it was conducted by a short land carriage of five days to the river Phasis, which falls into the Black Sea. Thence it was taken by ship to Constantinople. While such was the activity of trade by land there would naturally be a corresponding expansion of seaborne traffic from the seaports of China to India and farther west. The three centuries of the Tang dynasty at the same time gave opportunity to home commerce to grow in proportion. Trade flourishes when an empire is at peace. It was these circumstances combined which led to the invention of paper money in the Tang dynasty, and it was to the Chinese merchants and statesmen particularly of the ninth century that the credit is due in the first instance of employing paper money in the form of drafts payable at certain cities.

Those who wish to master this subject will find much to interest them in Vissering's work which received the Julien prize a few years ago. A few years ago the Peking Oriental Society published a paper (taken chiefly from a work by Wang Liu, published in 1831) by the lamented Japanese Minister to China, Shioda Saburo, on the same subject. This paper is of very great value. It brings out clearly the point that silver was not employed as money before the Tang dynasty, and that it was then introduced. Reference is here made to the work called *Ji-chi-lu*, by Ku Yen-wu,* who died two centuries ago, where it is said that before the Tang dynasty copper cash was the medium of exchange between government and people, and silver had never come into use. At that time silver was already introduced in South China, meaning by that term Canton and Kuangsi. It is a curious fact that at

* See Wang Liu's work, 鈔幣芻言 *Ch'au-pi-chu-yen*.

about A.D. 500, according to Chinese history as examined by Ku Yen-wu, there were in regard to money circulation three belts of country. In the extreme south gold and silver were in use; Canton being the centre of trade. In middle China, all along the Yangtse into Szechuan, copper cash were used everywhere as the medium of exchange. All this belt of territory with Canton, Kuangsi, and Tongking were then ruled from Nanking as the centre. In the north, which was under Tartar administration, copper cash and grain were employed as a double medium of exchange. The effect of Tartar control was to favour barter and keep back the onward advance of monetary conveniences. Even now soldiers are paid in grain when they are upon the old *régime*, but the new drilled troops are paid in silver. It is noticeable here that silver began to be a currency in South China first and at a time when China sent her prefects regularly to rule in Cochin-Chinese and Cambodian cities. Gold in ancient China was much used on account of its great abundance. But silver began to enter China because it is produced abundantly in Burma and because it was a circulating medium in India and further west. The silver which circulated by weight in Canton in A.D. 500 would be partly Burmese and partly what Arabian merchants and others brought from distant ports. The Arabian trade would certainly have a share in the introduction of silver by weight into the commerce of China in its southern provinces. We find many proofs of the activity of the Arab merchants from the Han dynasty downwards. This is probably another instance of it. The Mei-ling mountains, on the north of Canton province, at that time separated the belt of country which traded by weight from the belt of country which traded with the help only of copper coins, and this was noticed by the celebrated author Han Wên-kung in a memorial he sent to the Emperor about A.D. 800. Yuen Chen, another great statesman, mentioned at about the same time that salt

and pieces of silk were used as money in Szechuan. Cinnabar and quicksilver, he added, were used as money in Kuangsi, as also pieces of cloth and silk. At that time any valuable article which had a known price in the market could be bartered like coins elsewhere. It was in this way that silver came into extensive use. It was of a fixed value according to weight, and the silver mines of Burma made it very convenient when the influence of the Chinese government extended to that region. Another step in the use of silver was taken when in A.D. 1035 it was commanded that the provinces of the empire should not in future be expected to pay taxes in the same form. Most portions of the empire would pay in copper cash. Fukien, Canton, and Kuangsi might send silver; Kiangsu and Chêkiang could contribute silk. This is the first instance of the payment of taxes in silver being recognised in an edict, and it was 854 years ago. Since that time the influence of silver has been increasing to the present day, for during this century the change of grain to silver in the contributions of the people to the expense of the government has in many localities been made for the first time. A change back again from silver to grain or from silver to copper is never known.

For eight centuries the use of silver by weighing it, as a circulating medium, has been increasing in China, and it has known no check but the introduction of the dollar. The dollar, however, has only perhaps represented in the amount of its circulation a contemporaneous growth of new trade. The sycee in use as money has certainly not diminished in quantity on account of the large import of Mexican dollars which China now requires, for these dollars, when cheap, are often melted down into sycee. A thousand years ago the people in Central China kept their accounts in copper cash, which at that time would in the market procure a much larger amount of clothing and provisions than now, and the incon-

venience of copper on account of its relative weight would not be so much felt. They did not then change cash into silver in totalling up their daily and annual entries, because the change from copper to silver as a standard of value had not yet been made. Arabian trade brought to China the use of silver by weight as European trade at a later period brought the dollar. In both cases the flow of silver has been traceable from south to north in successive zones of country. The convenience of a paper currency made itself felt much sooner in China than in any other country because of the early use of engraved seals, the immense internal trade, and the commercial instinct of the people.

Want of Control over the Circulating Medium.

About seventy years ago a student of Chinese history in Soochow, already referred to, made some deep researches into the question of the currency. The currency was then becoming more and more out of the reach of government control. Foreign trade was increasing. The government had for nearly two centuries left silver to work its own way as money paid by weight, and received it in payment of taxes from each *arrondissement*. Only the copper cash were issued by the government. For silver there was no mint and never had been but once, and that for a short time, yet this metal had grown to be one of the most important elements in domestic as well as foreign trade. It was the same with paper. Paper notes representing money were issued by private capitalists in all large cities, and the government had no interest in them. Their success as a circulating representative of silver was entirely at the risk of the native bank. Silver and paper both represented money in all the large transactions of trade. The small market negotiations in copper cash which belong to the daily life of the people, and which, while as transactions they are counted by millions, are always small in bulk, were the

only trading operations of which the government issued the circulating medium. How strikingly different was this state of things from that which exists in the West, where gold, silver, copper, nickel, and stamped paper, are all issued by the governments as money. Our author knew nothing of this, of course, but he was still able to cast his eye over a wide range of financial facts. China had had a long history of financial experiments and a succession of prosperous and disappointing experiences. With the national annals before him, each dynasty having its special chapter on finance, it never struck him that China was, or could be, deficient in financial knowledge or unable to meet the new conditions of the time. He attempted to show that a change in policy was required in finance, and the conclusion he arrived at, and which he tried to prove by argument, was that a government paper currency ought to be again issued and the use of silver prohibited. The people should attend to agriculture rather than to trade. This was their proper occupation, and would lead them to a spirit of contentment. The circulating medium of trade ought to be in the hands of the prince as a source of revenue.

The reasons, he said, why the monarch cannot easily control the currency or derive revenue from it are five-fold. Coppersmiths melt coin because they wish to use the copper in making wash basins, tea kettles, and images of the gods. This is the first interference with the monarch's authority. In addition to this, lead and spelter are employed to make spurious coin in the furnaces of law-breakers aiming at a little profit. This is the second interference; and the third is the extending use of foreign dollars. (It is worthy of remark that through the whole of his book the author, writing in 1831, makes no allusion to opium; yet it is unquestionable that the spread of Spanish dollars first and American dollars afterwards was very much connected with the opium trade.

At the same time he makes no allusion to the silk or the tea trade. His point is simply that it is a loss to the Chinese government not to have the profit arising from the control of the currency. As to commercial questions he seems to have no information, nor did he seek any.) His fourth reason why the government fails to derive benefit from the circulating medium is that the market price of silver is entirely in the hands of the merchants. He would like the government to regulate the currency by authority—not knowing that it is disastrous and vain for official authority to attempt to modify prices. China has learned many lessons since the day when this author lived. The fifth cause of the feebleness of the government in regard to the control of the money market is the fact that bank notes and bills of exchange are issued by private capitalists.

Our author's advice to the government was to make a law prohibiting the use of silver in money payments and at the same time restore the issue of government bank notes which had been so long discontinued. In his opinion this was the only policy by which the five evils from which the government suffered could be eradicated and the country made prosperous. In support of this view he appeals to the history of money in China. Ancient statesmen saw the propriety of drawing a revenue of cereal products from one locality, of textile fabrics from another, and of coined money from a third. They did not see the need of a large issue of coins, except occasionally, when floods and drought compelled the adoption of this expedient. Nor did finance ministers in very early times limit money to silver or to copper. Pearls and jade, tortoise shell and cowries, bundles of silk and grass-cloth, served as money in China's ancient markets. About B.C. 800 an old poem says, "A simple looking lad, you were carrying cloth to exchange it for silk." The official master of the market, says the comment, stamped the cloth for use in

barter, and it was two inches in width and sixteen inches long. The author adduces this as classical authority for an issue of government bank notes. But as the poem mentions merely barter, and the explanatory remark is that of an author of A.D. 200, how can we know whether the market officer stamped the cloth or not? It may have been a simple case of barter. Whatever is meant it would scarcely be by stamping, for this mode of giving official validity was hardly in use so early. Why, for example, do we find that the cash of the Ch'in dynasty, B.C. 220, were issued without any inscription upon them? Books tell us that the Han dynasty monarchs were the first to direct characters to be inscribed upon their coins. This practice commenced about B.C. 200 and was never afterwards neglected. He refers to another example—that of painted squares of white deer skin, which in the reign of Han Wu-ti were used as money. They were priced at four hundred thousand cash each, and were presented to the Emperor by the high nobility or by his relatives at the daily audiences or at high festivals, after which they could pass into circulation for the amount mentioned. At that time there was also a silver coinage, the silver being mixed with tin as an alloy, on account of the whiteness of that metal. This alloy of tin was doubtless intended to prevent all attempts at melting the imperial coins. The melter could only lose by the act, and if it was not worth his while he would not place the coins in his melting pot. This seems to be a clear historical instance of silver coinage lasting for a very short time. Neither the silver coins of Han Wu-ti, nor the painted squares of white deer skin remained long in use; and the high value assigned to the deer skin would suggest that it was something like the million pound bank note of Samuel Rogers, which he displayed on the chimney piece of his breakfast parlour. It was more an object of admiration than of utility in an age of luxury and gaudy show. As to

the origin of paper currency in China, we must look to an age later than the Han dynasty.

Ten Reasons for a Paper Currency.

In the Ming dynasty, about A.D. 1600, when the Board of Revenue was desirous to return to the use of paper money, the governor of one of the provinces stated in a memorial what appeared to him to be the advantages of paper money. The first was that it could be manufactured at the capital of each province for use in that province. The second was that it could circulate widely. The third was that it could be carried with ease, being light. The fourth was that it could be readily kept in concealment. The fifth was that it was not liable to division like silver into different grades of purity. The sixth was that it did not need weighing, as was the case with silver, whenever it was used in a commercial transaction. The seventh advantage was that silversmiths could not clip it for their own nefarious profit. The eighth was that it was not exposed to the peering gaze of the thief's rapacity. The ninth was that if paper took the place of copper, and copper ceased to be used for making cash, there would be a saving in the cost of this metal to the government, or the copper saved could be used in manufacturing arms for the troops. The tenth advantage would be that if paper were used instead of silver, the silver might be stored up by the government.

Our author in citing these ten reasons for adopting a paper currency adds that the last two are defective. In adopting paper for the mercantile classes the copper coins would remain in use to meet the necessities of the common people. So also silver should continue to be used in making ornamental articles and head gear of various kinds. It would be a mistake to shut it up in the government treasury and prevent its being accessible to silversmiths. There is a fallacy

lying hidden in our author's reasoning. He thought that the authority of the government was all that was essential to the successful establishment of a circulating medium, not reflecting that if paper were so employed there was need of a corresponding store of gold or silver in readiness to pay value for the notes if the people lost confidence in them and wished for their metallic equivalent. It does not strike him that the financial credit of the government bank can be sustained only by payment in gold or silver to discontented holders of paper. He thought only of supplying the demand for ornaments and not of a run on the treasury. In fact, China is too large a country, and the merchants as a body too powerful by their numbers, for the government to attempt successfully the prohibition of silver, nor can it refuse to allow the issue of paper money to private banks. The difficulty in establishing a national bank is found in the fact that the government cannot take better care of the interests of the mercantile classes than each private capitalist can do for himself, and in the difference which exists in the commercial conditions of the various provinces.

In the ten reasons for adopting a paper currency when it is suggested that each treasurer of a province should issue bank notes, it may well be asked why not leave native banks in possession of this privilege, which is not only a benefit to themselves but to trade generally? It is certainly a great advantage to travellers that through the wide business connections of the Chinese bankers, bills of exchange may be bought in Shanghai and cashed in any of the provincial capitals of the empire. Both to native and foreigner this is an unquestioned benefit, and renders travelling ten-fold easier than if the silver had to be carried in the traveller's trunks. In the fifth and sixth reasons alleged for government paper currency the Chinese writer touches upon two patent and unanswerable objections to the present system. The silver

is weighed at each transaction, and it is circulated in varying states of purity. The scales with which silver is weighed differ in each locality, and the traveller feels himself outwitted. His money becomes less at each new point in his journey, and a general feeling of dissatisfaction with the currency grows upon him on his return; however, he would naturally become more reconciled to the tyranny of the scales had he silver left to weigh, for when he arrives again at places of large trade, his sycee weighs as much in proportion to bulk as before. The scale differs to allow the money changers in towns of small trade to pay their expenses, and when this is understood the indignation of the traveller sinks somewhat. But there is a worse trouble than the variation in the scales. It is the variations in the purity of the silver. It becomes alloyed in many ways and is reduced to purity only by re-melting. Blacksmiths melt the silver and in all places of large trade there are assaying offices which certify the purity of silver for a small sum. Silver sent to Peking to represent taxes has cut into it by the treasurer of the province the name of the *arrondissement* from which it comes and of the blacksmith who melted it. Only silver of first purity is allowed to be sent to Peking. In this way the government indirectly aids in rendering the silver which is in circulation as money much more pure than it would otherwise be, but the introduction of new silver into the money market is the work of merchants alone. Also the law does in a direct way by statute undertake to protect silver from the incessant efforts of the unprincipled who for private profit in every possible way try to diminish its purity. But it is so hard to discover the evildoer that statutes are promulgated in vain and the owner of the metal is in fact only protected by the shroff and the assaying office. When it is considered how much impure silver is in circulation there does seem strong reason for a silver coinage. This would at once improve the

standard and raise the average of purity. To reject the precious metals as currency because their purity is tampered with, in favour of paper, would be a mistake. The cure for the evil is to maintain the efficiency of the statutes which aim at the punishment of crimes against the currency. Mexican dollars were some years ago much more uniform in value than sycee silver, and the convenience of a coin is so great that it is remarkable that the Chinese government does not follow Japanese example and establish a mint.

Since the above was written government mints have been established and Chinese-made dollars are in circulation.

The Origin of Paper Currency in Seals.

The introduction of paper currency in China is very closely connected with the ancient history of printing. Those native authors who have referred to early passages which speak of the employment of seals by officers to give a money value to certain articles as the real commencement of paper currency have done quite right. Grass cloth, silk, and paper all admit of an impression being made on them with ink or with vermilion. In fact, vermilion mixed with oil was perhaps the oldest printer's ink, and the impression of the seal made of jade, copper, silver, gold, or wood was, if we allow the word block to include stone and metal, the oldest block printing. The Chinese saw seals from Western Asia, and they made them themselves with their own writing cut upon them to be used in giving validity to official documents, as also to employ them as amulets to protect them from imaginary evils. The seal was not only used to stamp charms, but the handle was a tortoise, a tiger, or some other emblem of longevity or power, in order that it might have a defensive effect against evil. These ideas imported from Western Asia with the seals were as willingly adopted by the Chinese for imitation as the more reasonable idea of employing the seal as a manifest

proof of the genuineness of documents. Among the more important of the improvements introduced and additions made to the Chow legislation by the founder of the Ch'in dynasty was the extensive use of seals. The progressive spirit of that dynasty is unquestionable. This is shewn by the fact that many features of the Ch'in legislation were adopted by the Han Emperors. Among them was that of giving a seal to every officer. The silver seals now called Kuan-fang of officers of the first and second rank, and the copper seals of Taotais are the continuation of an old rule which has come down from B.C. 221. The system has been found most useful, because the seal was the sign of delegated authority and of the fact that the viceroy instead of being himself a monarch was the representative of the imperial head of the state. The seal was the visible sign of the change from feudalism to centralisation. From that time it gradually became a fixed idea with the Chinese that they must have a seal impressed on every writing as a proof of property or genuineness. All scholars and firms at the present time have a seal, and seals are placed on books, drawings, and letters, to an extent which is quite remarkable. Since this custom can be traced back to the Han dynasty it becomes easy to understand that the way was open, whenever any one chose, to change a seal by cutting it in relief instead of internally, into a block suitable for printing blank forms and books. The multiplication of copies by stamping followed readily from the use of a stamp to give validity, and a stamp of four or eight or ten characters might readily be expanded into twenty or fifty. So then we have in the early use of seals the ideas of official validity, of superstitious efficacy, and of the possible multiplication of copies, beside the use of the seal as given to every official appointed by the Emperor.

Some one may ask what have superstitious observances to do with the origin of printing and of paper currency? To

this the reply may be given that superstition makes a custom popular and often helps a good notion to spread rapidly. The Taoists were accustomed to cut seals of the wood of the jujube tree four inches square, or three and a half of our inches, and circulated them among the people to check evil influences. They taught the people to believe that there were evil influences in the air always ready to affect them mischievously, and then they provided them with guardian charms to secure them from the harm which they themselves had taught them to fear. They are not alone in thus acting, for in other countries it has happened that superstition has been ingeniously made a source of pecuniary profit by not a few. The occasions when the use of seals as proof of genuineness were required were of course very numerous. It is mentioned for instance that generals had their orders cut on seals for rapid circulation among the troops under their command. In such a case in the third and fourth centuries the writing in camp orders would be white, while the ground was black or red. All the seal cutting and the circulation of charms and of mirrors with lucky sentences and animal shapes engraven on them were in every case so much preparation for the success of paper currency when the time should come. Not only does the credit rich men possess contribute to that success, but also the invention of blank forms rapidly multiplied by printing. The blank form saves time in writing and it also makes the document more uniform, more easily tested and more readily accepted as valid when presented to a third person. The dynasty of Ch'in Shi-huang gave the use of seals to China, and from that time forward the possession of an official seal became essential to each office. The Han dynasty simply followed the Ch'in dynasty rule. When this came to be the case the seal impressed with vermilion was attached by regulation to every document issuing from each officer, metropolitan or rural.

If then the Chinese in the Han dynasty had the common use of seals, large and small, and if paper was introduced about A.D. 200 by Red Sea traders as we know, how long a time might be expected to elapse before the use of paper money and the era of the printing of books? In fact seven centuries passed before books were commonly printed, and centuries before paper currency was adopted systematically by the government. The Chinese, intelligent as they certainly are, and lovers of every practical improvement as they plainly are, were not at all in a hurry to print books, to save the expense of copying, or to issue government paper money to save the expense of copper or silver. What the Chinese highly appreciate when adopted they are usually very slow to adopt. This is true of gunpowder, which they only began to use about the twelfth century, although they had fireworks in the sixth century. A small cause often retards the adoption of remarkable inventions. In this case it seems to have been the habit among workmen to cut into the material of the seal instead of cutting the inscription in relief. When once the thought occurred to some one that relief cutting would leave a white ground with a red or a black inscription, the path would be open for the invention of blank forms first and for the printing of books afterwards. What Chinese authors tell us is that seals in the Han dynasty and later left the characters white when impressions were taken from them, and further that in the Tang dynasty the characters in the impressions from seals became red. The meaning of this statement appears to be that the old seals were all or almost all cut in *intaglio* and that about the beginning of the Tang dynasty cameo cutting, or cutting in relief, became common. This casual remark of a Chinese author throws light on the fact that paper currency began in the Tang dynasty, and at the same time the period of printing books was brought so much nearer because the artisans of that age began to engrave in relief.

There was in fact government paper money about A.D. 806 and there were printed books about A.D. 920.

The History of Paper Currency.

The first attempt at paper currency in China, of which any record remains, was in A.D. 806, when bills of exchange were called "flying money." Merchants in the capital could by an ordinance, then first made, receive government bills in return for the merchants' copper money. On arrival at any provincial capital they could receive from the provincial treasurer the amount stated on the bill. There was a return to this system, which was a sort of banking facility offered to the merchants by the government, about the year A.D. 960. A bureau was instituted in Kai-feng-fu, then the capital, for the transaction of this business.

In 1023 Szechuen was suffering from the iron cash coinage which the government from scarcity of copper was forcing on the people there. The paper notes then put in circulation at Chêng-tu by the government were meant as a relief. They were to be returned once in three years. The idea sprang up among the rich merchants and was accepted by the government and the merchants conducted the business. The limit of capital represented by the notes was 1,255,300 strings; a string being a thousand copper cash. In A.D. 1150 the Golden Tartars had just conquered North-China, and about this time they adopted a currency in paper because they found copper scarce. Copper, silver, and gold have always been chiefly found in South China. A North-China kingdom finds it convenient to use paper so far as possible to prevent its being dependent on a southern neighbour. From this time forward, during a century of the Golden Tartars and another century of the Mongol domination, strenuous efforts were made to maintain a paper currency. Colonel Yule, Dr. Bushell, and others have printed fac-similes

of the notes of these periods. They are found, for example, in Yule's Marco Polo and in the journal of the Peking Oriental Society, published some years ago. All the efforts of the government did not secure the credit of the notes at par. On the contrary, they became depreciated to an extreme degree. This, however, did not prevent the government of the Ming dynasty, which acquired the sovereignty in A.D. 1368, from continuing for a time paper currency, which was finally abandoned as silver flowed into the country through the foreign trade, which brought to the southern ports a portion of the products of Mexican and Peruvian mines. It was American silver that gave the death blow to paper currency in China. The arrival of sufficient silver was the real relief which Chinese trade required. Notes were finally abolished about A.D. 1620. Thus the conquest made by silver over paper occupied about a century, or a little more, from the commencement of the trade of the Spaniards and Portuguese with Canton.

Gold as Currency.

Gold has retained its remarkable preëminence among the metals from the dawn of civilisation to the present time. It early attracted notice because of its weight and beauty, and was used extensively, where the art of working in metals was at all known, for the manufacture of useful implements and ornaments. The author of the *Shwo Wen* writing in the second century, gives the reasons for its being higher in esteem than other metals. It does not tarnish after however long a time. It does not become lighter when melted, even if it goes into the crucible a hundred times. It yields without resistance to the manipulation of the artificer. If this account be compared with that given by Pliny, who wrote a century sooner, it agrees substantially. Pliny says the superiority of gold is in its losing no weight when in the

melting pot or in a funeral pyre on the occasion of a cremation. Even drawn into wire the hands are not soiled by it as is the case when silver, copper, or lead are handled. It is also capable of being spread out into thinner leaf than any other metal, and is divisible into a greater number of parts. Nor is there any other of the metals which can vie with gold in the facility with which it can be spun and woven like wool, so as to take its place among the materials which compose textile fabrics. Some of the ancient kings of Rome wore golden tunics when they triumphed ; and Pliny himself saw at a naval sham fight, at which the Emperor Claudius was present, the Empress Agrippina seated beside him wearing a robe woven entirely of gold thread. This was the Empress who afterwards poisoned her husband to open the way for her son Nero to obtain the imperial dignity. It is on account of its durability and many uses that gold has always preserved its preëminence in market value and has always been in demand among the cunning craftsmen of every country.

When history begins in Europe and in Asia it is observable that there was everywhere a great abundance of gold. In the time of the Roman Empire it was found in Europe in the Tagus and the Po, as well as in the Hebrus in Thrace, while in Asia it was found in the Pactolus in Asia Minor. All these were within the Roman world, while beyond it the Ganges was famed for its gold. The Scythians had large quantities of gold ornaments ; and it was quite easy for the Persian monarchy to use gold as a coin because of the considerable quantities at that time brought from the Ural and Altai mountains and the rivers which flowed from them. In Spain mountains which produced nothing else were observed to produce gold, and the miners used both fire and acids to reduce the stony masses which contained the precious metal. Gold coins were cast by the Romans, and on them was

engraved or stamped the number of pounds they represented. They grew smaller under each reign, till in the days of Nero they became the smallest that had been known. In China the places chiefly mentioned as producing gold are Yünnan and Szechuan, Kiangsi, Canton, Kuangsi, and Fukien. The Chinese collect gold in the sands of rivers. They also beat and hammer rocks, melt stony masses, and persevere till they separate the stubborn metal from its stony envelope. Formerly they placed the ore in the fire of a furnace. They never, so far as we know, till recently used powder to cause explosions in rocks. They now adopt the foreign methods and employ Europeans and Japanese to help them in mining operations. They also use large quantities of dynamite. For a long period gold mines have not been worked, and what gold existed in the country has been hoarded or sold to the goldsmiths to make various implements. The following story from a Chinese book may be placed alongside of Pliny's in regard to the use of gold: A Mongol Alu petitioned one of the Mongol Emperors to permit him to use three ounces of gold in embroidering a pair of boots for his Majesty. The Emperor said, "Certainly not. Gold should not be used in making boots." The courtier then asked for three ounces of silver thread, to be covered with gold. "No," replied the Emperor, "gold and silver should only be used to adorn the head." He then asked, "What do most people employ at present as thread for embroidery?" Alu replied, "Copper thread is most commonly used." "That," said the Emperor, "will do; use copper thread."

The high price of gold renders it everywhere an important standard of value, although it may not be made into money. It has always been sold by weight, and is everywhere acceptable in payment for commodities. It was in the time of Herodotus valued at thirteen times its weight in silver. It is now (February, 1901) in the Shanghai market worth thirty-

five times its weight in silver. Not many years ago it was in China valued at sixteen times its weight in silver. In the days of Herodotus gold was coined by the Persians, but its chief use in buying and selling would be as an uncoined metal in barter, on account of the small space it occupies in packing in proportion to its weight and value. At any rate its use has been of this sort in China. Gold was always in ancient times the article first in rank among the commodities bartered for grain in Chinese markets—silver, silk, grass cloth, salt, and other things coming after it. But it must have been much cheaper then than now, for Kang Hi's Dictionary mentions that formerly a thousand catties of gold were needed per day for an army of 10,000 men. In that case ten men would need a catty, and each soldier would require three catties a month. Gold then must have been not only abundant but cheap. The reason of this would be in the large quantities found in the early ages of civilisation on the surface or near the surface of the earth, in the beds of rivers or elsewhere in many parts of China Proper and of the countries with which China had intercourse.

Gold Export Previous to 1889.

Gold has kept its price well in China during recent years. The constant demand from Europe to meet the needs of the countries that have lately established a gold coinage has had its effect on the gold market in China. Germany began to absorb eighty million pounds sterling fourteen years ago. It was done in the following manner. There were in 1875 in circulation 640 million marks of small notes, equal in English currency to 32 millions sterling. They were replaced by notes of 100 marks or above 100 marks in value, that is, £5 notes, and £10 notes, and by gold and small coins. Between the middle of 1875 and the end of that year notes had been exchanged for coin to the extent of £15,000,000.

Paper gave place to coin in Europe just as in the Ming dynasty in China silver increased in quantity and the government found that it would be better not to issue any more paper notes. The new love for gold in Europe has influenced the most distant money markets. Consequently Peking, Chefoo, and Corea are now every year sending gold to Europe. They are sending all they can and as fast as they can get it ready. Take for instance the export of gold from Tientsin. The following figures appear in the Customs' Reports, and it must be remembered that it is Peking gold chiefly that is here entered :—

Export of Gold from Tientsin.

1882.....	Taels 574,414
1883.....	„ 610,022
1884.....	„ 112,228
1885.....	„ 1,781,337
1886.....	„ 1,875,976
1887.....	„ 1,706,864
1888.....	„ 1,398,264
1889 (six months).....	„ 1,044,459

The rich families in Peking are parting with their hoards of gold because of the good price at Shanghai. Silver is cheap, and all the rich property holders of China count their treasures in taels of silver. They are attracted by the gain which they can acquire by an increase in the number of taels of silver which is paid them at Shanghai for hoarded gold, since the price of silver went down. This table shews how steady on the whole the outflow now is year after year. It went on increasing till 1886. Then it declined a little. Now it is rising again. In Chinese life it is quite common for rich families to become poor. In such cases gold ornaments will be exchanged for silver. The thick needles round which women's hair is bound, their bracelets, rings, and other

ornaments, if of gold, will, when poverty comes in at the door, be exchanged for silver. Gold thus sacrificed may go far to pay a husband's debts. Men who are not poor will give their gold to make profit by exchange. In Peking there are likely to be many rich men who have acquired wealth in the provinces and who have for convenience carried it to Peking in the form of gold. From their hoards much of the present stream is probably supplied. They see a sufficient reason when they read in the Chinese newspapers that they can obtain perhaps Tls. 23.6 of silver for one tael of gold in the Shanghai market.

The gold sent from Chefoo to Shanghai is gradually increasing in quantity, as may be seen in the following table:—

Export of Gold from Chefoo.

	Value in Hai- kuan Taels.
1881.....	58,348
1882.....	68,448
1883.....	48,893
1884.....	47,457
1885.....	69,520
1886.....	164,648
1887.....	140,970
1888.....	233,000
1889 (six months).....	66,260
	<hr/> 897,544

The export rose until 1882. Then it declined during two years. In 1885 it rose again during three years; now it is falling. The highest amount it has reached has been about the value of £60,000 sterling a year. Books say little about Shantung gold. In the Book of History lead is the only metal found there, in the section known as the Tribute of Yü. In those days, four thousand years ago, gold, silver, and copper

came from southern China as tribute to the Emperors, the two last coming from southern China alone. The great source for receiving gold was, however, the tribes who inhabited Tartary. War with these tribes in the first and second centuries before Christ brought to China immense amounts of gold. History mentions gifts made to victorious soldiers at one time of more than 200,000 catties. Of course it was a very small catty which was in use then. This was after a battle in which 19,000 of the Hing-nu were killed. The gold would be taken from the captured tents and the armour of the slain warriors. All the gold then used as ornaments by Tartar men and women would naturally be brought from Siberia or the mountainous parts of Tartary.

The gold of Corea is partly forwarded to China, but most of it goes to Japan. In both cases it is probably sooner or later sent to Europe to meet the present demand.

Export of Gold from Corea.

		Value in Dollars.
1885.....	To China	46,100
1886.....	„	218,743
1887.....	„	210,294
1888.....	„	348,564
1889 (six months)	„	115,014
		<hr/>
		938,715
		<hr/>
1885.....	To Japan	388,269
1886.....	„	911,745
1887.....	„	1,177,975
1888.....	„	1,025,401
1889 (six months)	„	339,448
		<hr/>
		3,842,838

There seems to be no probability of a rapid increase in the yield of Chefoo gold or that of Corea. The native apathy in regard to the existence of gold in various parts of Shantung Promontory is noticed by Dr. Williamson in his Journeys in North-China. Yet there is a sufficient yield of the most precious of metals, to warrant the expectation that after a time Shantung may produce gold in greater abundance. The legal prohibition to search for gold has led to the surface only being scratched. To dig beneath the surface is to deprive the land of its prosperity. This belief has influenced both the people and the government. The consequence is that more is left for the men of coming ages. In Australia the abundance of gold does not diminish as the works become deeper, and it is expected that they may be continued for a depth of two thousand feet, and gold still be found. If this view is correct China must have a good prospect of obtaining large quantities of gold in future years, not only in Shantung but in many parts of the southern provinces, and on the southern slopes of the Altai mountains in particular. The present drain of gold from Shanghai does not alarm the Chinese much, but it must later produce an effect on them. The following table shews the present condition of the export:—

Export of Gold from Shanghai.

	Value in Hai- kuan Taels,
1886.....	1,746,248
1887.....	3,449,853
1888.....	2,018,899
1889 (six months)	862,875

The maximum was as appears from these figures about eight hundred and thirty thousand pounds sterling in 1887. The amount of export is now declining. This is not because the demand in the west is less, but more probably because

there is a limit to the quantity of gold which the holders are willing to convert into silver at the current price.

Silver.

The silver used in China as a circulating medium in her commerce has been increasing, in quantity especially, for four hundred years, and most rapidly of all during the present century. Each industrious Chinaman represents so much wealth by his labour, that is, so much silver, for silver has now for several centuries been the standard of money value in this country. The increase of population means an increase of wealth wherever there is scope for industry; and in localities where opportunity is wanting, it leads to emigration. At the beginning of the Ming dynasty, in the latter half of the fourteenth century, the public currency had fallen into a most unsatisfactory state through the government not being able to maintain the credit of the paper notes then used. Yünnan was conquered, and it contained many silver mines, and these were worked to increase the quantity of silver then rapidly coming into use as a medium of exchange. We are told that in 1578 the government received from Yünnan 13,764 taels in paper money, 944 piculs of grain and 5,769 strings of shells. Two hundred years later the amount received in hemp, cloth, and silver amounted to 14,801 taels of this last metal. The strings of shells used as money had disappeared. The cumbersome grain tribute in heavy bags had become changed for silver. But hemp and cloth were still received by the government tax-collector because they could be exchanged for silver and the expense of conveyance of these articles was not very great. Yet after a few more decades this mode of paying taxes will again be exchanged for silver, which in a country like China, has proved to be the most economical form of tribute. The government in these circumstances began to prize silver very highly. It keeps its value

as an article in great request for ornamental work. It is cheaper to convey than other kinds of tribute. It is acceptable in trade, and the merchant is far more willing to part with his goods for silver than for paper money. Hence the government made efforts to obtain more of it. They set criminals to work in the mines of Yünnan. This was in 1460; and they do not seem to have allowed Chinese employers of labour to manage mining operations. They considered it good policy to keep the mines in their own hands, and they ordered the high officers to report fully on any failure in the working or diminution in the yield of metal. Then in 1463 the works were suddenly ordered to be stopped, probably because of earthquakes, for a few years later, in 1511, the Governor of Yünnan sent up a memorial advising that all the mines should be stopped, on account of fresh earthquakes; but they were opened again in 1514, notwithstanding other objections which were pressed at the time, such as the gathering of a rough-spirited population at the mines and the neglect of agriculture in the province leading to want of food to supply the needs of immigrants. At this very time American silver began to enter the country through foreign trade at Canton and Amoy. More silver was thus introduced and a real need supplied, for it enabled the government to abandon both the shell currency in the south-west and the paper currency everywhere, and the merchants were very glad to see the last of the government notes and to have in their place this shining metal. Silver was now wanted by every one to keep in store or use in buying as he pleased.

The value of silver in copper cash has gone through great vicissitudes. It has been three thousand and it has been one thousand per tael. In A.D. 1696 a tael of silver was worth 1,750 cash, and it is now, A.D. 1889, worth 1,380 in the Shanghai market. In the reign of Yung Cheng, about A.D. 1730, thirty-six taels of silver were paid for a month's

maintenance to twenty-one workmen at cash foundries in Yünnan. That is to say, one ounce and three-fourths of silver would then support an able bodied workman for a month. In 1555 the casting of cash in Yünnan was commenced, on account of copper being produced there in abundance. The disuse of paper made a new supply, both of silver and of copper cash a necessity, and from that time forward both metals have been needed; and when the growth of population is remembered they must still continue to be required in increasing quantity. Two centuries ago the workman could live for 100 cash a day. Now more is required, because prices have risen and every one who carries on his shoulder his baskets of market produce from his little farm to the adjoining local centre of merchandise expects more money for it than his grandfather did. The old currency needs to be modified to meet the new conditions. Copper cash are not enough for the uses of common life. Silver is required to do what the cash, through gradual sinking in value, cannot do. Two hundred cash are wanted to buy that amount of food and clothing for which in former times one hundred would have been enough. That is to say, the man who goes to market to buy must carry with him twice as much weight in copper as his great-grandfather did. It is more convenient in these circumstances to have small silver coins, and this is our convenience in the west, or small notes issued by native banks and properly stamped and inscribed may be used as they still are in Peking.

Yet small silver coins could not now in China take the place of copper cash. Copper must continue to rank in China as the most widely useful of all currencies because of the disproportion in the expense of living in large cities and in country districts, and the wide differences in climate existing between the north and the south and between mountain and plain in so large a country as China. That coin is most

adapted to China which has the most minute divisibility. A dollar which is now worth $\frac{3}{3rd}$ is divisible into a thousand separate coins composed of a mixture of copper and zinc. It suits the prices of marketable articles and the incomes of the people to retain this subdivision in current coins. Even silver is circulated in very small lumps as well as in large ones, and the small hand steel-yard used in weighing it is subdivided into hundredths of an ounce. Such a steel-yard is part of the kit of every traveller, as a check on the weighing of the money shops.

The Silver Mines in Yunnan.

Yünnan is the Chinese province in which gold and silver with lead, copper, and tin are found in the greatest abundance. When forty years ago the Cabinet Council was ordered to consider all available ways and means for replenishing the treasury and to urge the improvement of the administration in matters greatly affecting the public weal, the reply of the Cabinet embraced five points—they were rivers, grain conveyance, salt revenue, taxes and duties, and, finally, mines. As a consequence all the viceroys and governors were ordered to make enquiry into the existing condition of their provinces and to report their views as to what should be done within the region over which they presided. Lin Tsê-hsü was at that time the Viceroy of Yünnan and Kweichow. It was shortly before his death. He sent officers of ability to all the mining districts, extremely numerous in Yünnan, and from their reports of the condition of the various mining industries at that period he prepared an elaborate memorial in which he gave many interesting details. The chief additions to the supply of silver from domestic sources during the Ming dynasty and under the present government have been obtained from Yünnan; and of gold also. It is important therefore to know how much native silver has thus been

added to the foreign silver to make up the sycee of commerce throughout China and the staple of the Chinese revenue. Taking the yearly amount estimated by the Board of Revenue as that which the government should receive from sixteen mines in and after the year 1811 at Tls. 26,550, it appears that since that time till now the sycee of the country should have been increased by two million and a quarter taels sent to Peking from Yünnan. To this should be added the amount spread among the people by the miners, whether labourers or employers of labour. The government share is fifteen per cent and the annual output, as estimated by the Board of Revenue in 1811, was therefore Tls. 177,000 of Yünnan silver. This would accumulate annually, and in seventy-eight years would increase the stock of silver in the country, embracing that used in the arts with that employed as a currency, to the extent of Tls. 13,806,000. Yet forty years ago when Lin Tse-hsü prepared this memorial he reported that one of the sixteen mines was then unproductive, so that he rated the annual output at one-sixteenth less than the Board of Revenue estimate in 1811. Making a reduction of Taels 800,000 on this account we have thirteen millions as the native yield of silver from the mines of Yünnan since 1811.

The locality of these mines is principally in the north-east, south-east, and south of the province. The great earthquake of a few years ago shook the centre, and it would appear therefore that the productive gold and silver mines of that large and thinly peopled province are on the outskirts of the earthquake region. It is an interesting question whether there is any geological cause for this. It might be conjectured that when liability to earthquakes coincides with mines of the precious metals in one locality, the existing veins of gold and silver must have been thrown up from their subterranean source at a later date than similar veins in localities which are and have long been free from disturbance. The most

notable earthquake region of China at present is in a line north and south from Yünnan to Kansu, inclusive of both these provinces. Geology has taught us that the Himalayas are the newest of the great mountain chains of the globe. The rich store of the precious metals in Yünnan may have some connection with the great Himalayan upheaval which found its eastern limit in the province of Szechuan. Wherever there is a vein of metal there must have been first a fissure produced in the rock where it is found into which the molten metal from below could be poured as into a mould by the upheaving force.

Lin Tsê-hsü speaks in his memorial of the discovery marks which guide the miners in their search for new veins of gold and silver in Yünnan. When the Cornwall miners notice in some new locality small masses of rubbish in which a little metal is seen they call this a *shoad*. The Chinese call it *miau*. It is the end of a vein which may be uncovered by the miner with his tools, and he then learns in what direction the vein of metal runs. The approaches to the *miau* are called *yin* and the Chinese in Yünnan have a proverb which says that "when one mountain has ore a thousand mountains have the *yin*," or leading indications which conduct to it. *Yi shan yu kung, chien shan yu yin*. Our English word load in "loadstone" has the sense of leading also, and its use is analogous to that of the Chinese miners' word *yin*. There are in Yünnan many abandoned mines. Some mines that still yield a little are closed officially because the yield is not sufficient to pay expenses and allow the Emperor to have the fifteen per cent which the law requires. Some mines are entirely official, and all that is yielded goes to the government, working expenses being deducted. When there is a prospect of the successful working of a new mine, a petition announcing the fact and asking official permission is presented. The number of persons who may dig for the

precious metals is limited by the consideration of the extent of the metalliferous locality. A thousand persons must not be allowed to gather where only a few hundreds can gain a living by digging. As to the case when any mine does not yield its quota for Peking, the high officials are allowed to supplement the deficit by the surplus of some other mine. The government will be satisfied if at the appointed time they get the whole amount fixed by law. When this energetic Viceroy, so renowned on account of his destruction of several ships' cargoes of opium in the Canton river a few years before, was sent to Yünnan, he at once commenced diligent enquiry into mining operations, and he was prepared to make a full report when the edict requiring it arrived. He had already his emissaries distributed through all the districts collecting facts. The last part of the report gives the rules which he recommends for adoption. They are: first, the removal of the prohibition to mine for lead. In ten catties of lead he mentions that six or seven mace of silver could be obtained. Secondly, there should be the cutting down of superfluous expenditure. This improvement was needed in mines of all the five metals because an absurdly complex system of payments and obligations at the mines had grown up. Thirdly, strict discipline over the miners was called for. Among them for one honest man there were eight or nine dishonest ones. It is essential to have officials present to control the miners and punish offenders with the cane and the bamboo. Fire-arms must not be allowed within the mine gates. Fourthly, it is necessary to take precautions against fraud. The people who collect at the mines in Yünnan form brotherhoods and have shares. There are men among them who bring a sample of ore, exaggerate the prospect of gain from working the ground where this ore was obtained, and mislead others into taking shares in a worthless claim. A strict surveillance needs to be kept at all the mines for the prevention of malpractices.

Copper Cash.

The older books written by Chinese archæologists on the history of *cash* contain at the beginning examples of money professing to come down from the primitive ages. Some of them belong to Fuhî and others to Shen-nung. The foreign collector of *cash* ought to know, if he has such coins in his cabinet, that this immense antiquity is given to them by mediæval mythmakers. The best modern numismatists do not recognise such a claim. Yet they appear in a book of so much authority as *Hsi Ch'ing Ku Chien*, compiled by an imperial commission and published A.D. 1749. They chiefly belong to the age of Mencius or thereabouts. Seven hundred years ago, when the capital was at Hangchow, the first complete book on Chinese coins was published. Since that time archæologists have been numerous and a persistent effort has been made to collect newly-found coins. Builders of houses and walls, countrymen at work in the fields, restorers of bridges, and diggers of canals in any part of China, from time to time meet with old cash which are added to the current coins in circulation or are sold or presented to local numismatists. There never has been a law against the use of old cash mixed with the new, nor has there been any official effort made to collect them, and in consequence it is an everyday occurrence to meet with coins made a thousand years ago. The traveller in China does not know, unless he examines carefully, how many relics of distant centuries constantly pass through his hands or through those of his "faithful Achates."

The chief interest attaches to coins of a time anterior to the bookburning, B.C. 211. That was the period when literature and the arts and sciences took a mighty spring upward. It was the time when great books were written destined to be ever after preserved by a grateful nation as those precious heirlooms which a mad conqueror in his enmity against the

sages failed to destroy. The coins of that time are indicators of progress in commerce and the arts in various localities of northern China. We may consider it as proved that bronze casting and the manufacture of iron implements as well as gold-smith's and silver-smith's work were well advanced long before Confucius. The history known as *Kwo yü* shews that this was the case in regard to work in bronze. But cash were cast before B.C. 524, for it is recorded in that year that larger coins than had been before made were then cast in Houan on the banks of the Yellow River by order of the Chow Emperor. From the collections of the numismatists it appears that a square hole in the middle and a legend of two characters were in use as early as this in Chinese coins. *Hwo* was the word for "money," meaning that which is changed (*hua*) for something else. *Pao*, "valuable," was prefixed to it. But coins must have existed before this, and in the Han dynasty it was fully believed that Kiang Tai-kung, the chief minister of Wên Wang in the 13th century before our era, introduced them in Shensi when in office, and afterwards in Shantung when he retired to his principality. His special repute is for advancing commerce, and it was under his fostering care that the salt trade of northern Shantung came to exercise a decided influence on the development of internal commerce in ancient China. The history of Pankoo ascribes to Kiang Tai-kung the origin of round coins as distinguished from knives and pieces of cloth. We may adopt this view and may connect it with improvements in metallurgy and new acquisitions of foreign knowledge at the beginning of the Chou dynasty. If Kiang Tai-kung is rightly credited with the origination of round cash, the period of that improvement is then fixed to the 12th century before our era. Yet it may be that he is credited with it because he promoted trade and was possessed of political sagacity shewn in various useful measures. If at any time between the

eleventh and fifth centuries before our era the coins called *cash* were introduced by any statesman in Northern Shantung, whose name did not shine out with lustre in history, it was very likely that the improvement would be attributed to Kiang Tai-kung. It would be by a suggestion from the strings of sea shells then used as money that the idea of a hole for stringing the new copper coins would be most probably derived. Further it would be before the time of Kwan Chung, the great administrative statesman of the seventh century, for in the book purporting to be written by Kwan Chung, there are several references to the coining of cash, but the compiler does not attribute the invention to Kwan Chung himself. Perhaps in these circumstances it may be best to assign the first round metal coinage to about the ninth century, the age of Sinen Wang, when the country was prosperous and wars were conducted successfully. But this may be too late, and there is really no very strong reason based in the old literature of China why to Kiang Tai-kung the honour of introducing a copper currency should not be assigned. The remarkable old work *Chowli*, in describing the administration through all its departments, mentions among them a cash office for the manufacture and issue of cash. But this book was probably small at first and its bulk increased from one period to another, and this particular statement may have been inserted, we know not when, by some unknown official. We must wait for more discoveries from underground. The railway from Peking to Hankow will in Chihli and Honan proceed through a country occupied by a people who for four thousand years at least have ploughed and sown the land, carried the produce to market, exchanged it for something necessary for use or ornament, and returned to their homes with their new possessions. The railway works may anywhere in that region, "rich with the spoils of time," yield interesting treasures which will throw

light on the past. Should there be a line made from the city of Confucius, or from Tai-shan to the north of it, to Tientsin, it would bisect the very territory which belonged as a feudal fief to the traditional founder of the copper currency of China. As about many other ancient matters, so on the question of the origin of this currency, our successors will know with certainty what now cannot be determined.

Shanghai as a Money Distributor.*

The *Customs Gazette* gives increased facilities in its newest form for observing the part taken by Shanghai in receiving and distributing treasure. The treasure tables of the *Customs Gazette* mark the movements of gold, sycee, dollars, and copper cash. These four elements of Chinese currency are not only constantly circulating from hand to hand. They are a part of the freight of steamers bringing profit to the merchant, and as such find their place in the quarterly returns of trade of the Imperial Maritime Customs. The most striking feature is the flow of dollars to Shanghai, which at present amounts to about five millions in three months. Against this large amount only about \$80,000 are sent away again by steamer. The five millions, in addition to the facility they give to Shanghai for conducting commerce, as for example in buying sycee to send to the north, go to increase the circulating medium in the silk districts, in Soochow, in Hangchow, and in other large cities of Kiangsu and the adjoining provinces. Of the five millions, more than three come from Hongkong and Macao and \$170,000 direct from America. Ningpo sends more than half a million dollars to Shanghai in three months, while Wenchow sends \$120,000 and Foochow \$150,000. Amoy and Swatow together part with \$350,000 more. There is no corresponding movement of dollars to or from the ports of the north or of the Yangtze

* Written in 1889. The statistical information given here belongs to that time. The same is true of the seven essays following this.

river. This constant flow of perhaps twenty million dollars a year shews that Central China, especially in its eastern part, urgently needs dollars to assist in its trade. There are parts where the Carolus dollar is in demand and the Mexican dollar is not wanted, but in the rich Soochow plain a decided partiality is shewn for Mexicans. In Foochow a million dollars were parted with to Hongkong during the last quarter, shewing that North Fukien is willing to lose that amount from its currency for the sake of the opium smoker's gratification. Foochow imports 1,100 piculs of Indian opium in three months. The fact is similar in Formosa; Tamsui sends in three months \$50,000 to Hongkong, and Takow as many more. Formosa must have her thousand piculs of the Indian drug in one quarter of a year and diminish her store of accumulated wealth in proportion. Very likely the \$200,000 which Formosa sends to Amoy may also be chiefly set down to the love of opium. The Chinese in Formosa have now smoked opium for more than a century and a half, for it must be remembered that the first imperial edict against the sale of opium for smoking was made because of the spread of that habit in Formosa 160 years ago. When Amoy and Swatow present their statistics, export of dollars to pay for opium is still the chief fact calling for remark. This is not so much in regard to Amoy, which sends only about \$20,000 to Hongkong; but in Swatow no less a sum than \$700,000 is parted with from the people's store, chiefly, it must be supposed, to obtain opium as an indulgence; for looking into the table of imports we find that Swatow received 1,859 piculs of opium from Hongkong and paid 57,000 Haikwan taels of opium duty. Opium then is the great deranger of finance in the eastern portion of Canton province and the neighbouring part of Kiangsi. In Canton city, representing the central and northern portion of the province and the adjoining prefectures of Hunan and Kuangsi, the most striking feature

is the absorption of dollars from Hongkong, amounting to more than a million during the last quarter. The receipt of opium from Hongkong was during the same time 3,300 piculs. The people there want dollars and will not part with them, preferring to pay for opium in other ways. Hainan is like Formosa in its habits, but on a smaller scale, parting with \$150,000 to Hongkong in return for 160 piculs of opium. So it is with Pakhoi, which, situated on the south-western coast of the province of Canton, sends \$240,000 to Hongkong, receiving from it in return 280 piculs of opium. Thus the regular growth of trade allows the Kiangsu people to absorb twenty millions of dollars in a year to facilitate the operations of commerce, and those of the Canton region about four millions. In all at the present time China is absorbing somewhere about twenty-four millions of dollars in a year, so far as we can judge approximately by a single quarterly number of the *Customs Gazette*.

In regard to gold, at the present time Shanghai is sending away every three months to Europe an amount whose equivalent is 187,000 Haikwan taels and to India 280,000 Haikwan taels. Including smaller amounts, such as 20,000 taels' worth of gold to Hongkong, China is at present parting with hoarded gold and the produce of mines to the extent of about two million Haikwan taels in a year. All this or almost all comes from the north. There is 131,000 taels' worth from the Manchurian gold mines, and 57,000 taels' worth from the Chefoo gold mines, but the main part of the export is from Peking, which amounts to 500,000 taels. There is evidence here that the European demand for gold affects the rich families in Peking to this extent at the present time, and wealthy people among the higher classes are learning now to study the rates of exchange and make profit by the diminution of their gold hoardings. According to the tables Shanghai

has received other amounts of gold during the quarter to the extent of 77,000 Haikwan taels. This is chiefly from Corea, which has sent from her gold mines 254,000 dollars' worth of gold, of which \$134,000 went to Japan and \$120,000 were shipped to China. Thus it appears that the Corean gold mines are the most productive at present, and next come the Manchurian.

In the northern provinces dollars are very little known, and silver is the favourite medium of payment for commodities. In consequence of this, Shanghai sent to Newchwang during the quarter half a million taels of uncoined silver to pay for beans, oak-leaf, silk, and gold. To Tientsin, Shanghai sent 575,000 taels of silver to pay for samshu, strawbraid, boots and shoes, gold, wool, felt, skins, and medicines. To Chefoo she sent 86,000 taels chiefly for beans, beancake, vermicelli, and gold. Up the Yangtze river Shanghai sent during the last quarter 400,000 taels to Hankow to pay for tea, tobacco, medicines, silk, oil, vegetable tallow, and wood. She also sent 53,000 taels to Ningpo, receiving in return tea, medicines, silk, piece goods, and fish. Shanghai has during the closing months of last year also been sending to Europe and India 68,000 taels of silver each. Should any one ask from what places Shanghai received the silver amounting to nearly two million taels which she has distributed, it may be replied that 870,000 taels came from America and half a million from the Straits Settlements. Hongkong sent her 70,000 and Japan 180,000. Of the river ports Chinkiang sent her 40,000 taels, and Wuhu 60,000 taels. But Shanghai sends away by steamer much more uncoined silver than she receives. The difference for three months is not less than a million and a half taels. She therefore draws upon some hoarded stock of silver near at hand. The key to this is found in the circumstance that dollars are rapidly taking the place of sycee silver in the hoards of Kiangsu people. The northern trader likes uncoined

silver best, and he obtains it. He can conduct his mercantile transactions without the dollar. So with the Hankow trader. The native owners of medicine and tea prefer sycee to dollars, and Kiangsu to please them makes an exchange of hoarded sycee for dollars whenever the supply from America and the Straits proves to be insufficient. At the southern ports too, when there is an export of dollars this is the most likely to be the reason. It is not that the southern merchant begins to tire of dollars or that the southern provinces cease to absorb them; the cause is partly found in the demand for sycee at Shanghai. When western and northern commodities are brought there by steamers, Shanghai has to pay for them in a currency acceptable to the northern and western trader. Sycee is bought with dollars in Shanghai, where the bankers can find it in the neighbouring cities. Thus Swatow, longing for opium and partly to pay revenue, sends 420,000 of her hoarded dollars to Hongkong to buy it, and Hongkong ships them as revenue to Canton, or as cargo to Shanghai. There the banker changes them for sycee, which is preferred to dollars at Newchwang, Tientsin, and Hankow. In the three Manchurian provinces represented by Newchwang foreign opium is not wanted, and hence the people there are able quietly to absorb about two million taels of sycee silver in a year in return for their produce and as a fund to buy cotton goods from England and America. So it is with Tientsin. Sycee there is changed for wood, gold, felt, and skins. Hankow in the same way pays her tea cultivators with the sycee which Shanghai sends. Thus Shanghai is shewn to be the real centre round which the money circulation of the whole country revolves. Shanghai stands between the north, the west, and the south, and adjusts the money circulation so as to satisfy the demands of each.

The Opium Drain of Silver.

Political writers in China for more than half a century have constantly repeated the statement that opium depletes

the national store of silver. They continue to do this down to the present time, and there is no doubt that the statement is true. The confirmed opium smoker cannot wait for his gratification. He must enjoy it every day at a fixed time. If he does not possess the necessary silver he must beg, borrow, or steal. This he will do through the imperious demands of a depraved appetite. A victim to a bad habit, he does not yield to the argument of the reasoning faculty; as it is with one so it is with millions. When an immense number of individuals daily insist each of them on the expenditure of a small amount of silver which is rapidly exported to foreign countries, the silver question comes necessarily before the attention of the government. The governing authorities in their care for the country's interest are obliged to consider what can be done to prevent the constant outflow of silver. Not being able, as they supposed, to destroy a bad moral habit, they first tried to check the impoverishment of their country by destroying an enormous quantity of opium while it was still the property of foreign merchants. They would have done far better to have bought it all at its price and then destroyed it. This would have saved a war. Since that time the native growth of the poppy and the manufacture of opium by the Chinese themselves have been extending so greatly that now every year the region which makes use of opium from India is contracting. The contraction of the area, however, is somewhat slow and irregular.

At Ningpo the import of Indian opium in ten years sank from an annual amount of 8,000 piculs to 6,000 piculs. But Shanghai still (1889) imported 17,400 piculs, while seven years ago the amount was 13,000 piculs. Seven years ago Shanghai and Ningpo imported in all about 21,500 piculs, all apparently for local consumption; at present they require 23,000 piculs. There is an advantage in linking together the amount received at these two ports for local consump-

tion, because Shanghai now sends opium direct to Hangchow, which city was formerly supplied from Ningpo. In Soochow, Hangchow, and the other cities of the two provinces of Chêkiang and Kiangsu, the consumption of Indian opium is still therefore increasing. It is not here that the competition with the native drug is at first view very perceptible. In 1873 Shanghai and Ningpo required in all 20,000 piculs. If we take the river ports together, the opium of India was imported in 1873 to the amount of 19,000 piculs. In 1879 that amount was still required, and also in 1884. Since that year the amount has declined. It fell to 17,000, then to 16,000, then to 15,000, then to 11,000, and now it is 14,000. From Chinkiang west to Hankow the people use one-third less of Indian opium than they did eleven years ago. Here may be seen the gradual triumph of the government policy on the opium question. The people in Kiangsu, Anhui, Kiangsi, and Hupeh smoke as much opium as ever, and more than ever, but they only buy Indian opium to the extent of Tls. 5,300,000, whereas eleven years ago they spent on this indulgence Tls. 7,200,000. Of the Tls. 5,300,000 the Chinese government gets nearly a third, and the remainder is lost to the country, and is devoted to the relief of Indian burdens, to the support of the native Hindoo cultivators, and the maintenance of the government of India. The results will be somewhat different if we class Chinkiang with Shanghai and Ningpo, and throw Wuhu, Kinkiang, and Hankow together. The fall of the Chinkiang import has been very rapid. In 1884 the import there was nearly 11,000 piculs. It has now fallen to 4,000. This must be partly because Shanghai now supplies many smokers who formerly were provided for through Chinkiang. If we include Nanking in one category with Soochow and Hangchow, as we must do if we place the imports of Chinkiang, Shanghai, and Ningpo together, we have another advantage. The chief seats of the cultivation of the mulberry and of the silk and satin

manufactures are thus combined in one set of figures. In 1873, then, the silk country of China used 36,000 piculs of opium. In 1888 the amount was 28,000, and last year it was 26,000. That is to say, the silk districts have within seventeen years changed the use of foreign opium for that of the native product to the extent of one-fourth of the whole amount used by them seventeen years ago. Their expenditure on foreign opium has been reduced from 13,000,000 taels to 10,000,000 taels. Nothing will induce the statesmen of China to alter their opium policy after such results. After a few years they will have the courage to tax the native drug heavily, but for the present they have a firm conviction that it is their duty to prevent their people, if possible, from enriching India at the rate of 32,000,000 taels a year. If they will injure themselves physically by smoking opium, let them at least smoke the native article. By classing together the three river ports above Chinkiang, we learn that whereas in Central China 8,500 piculs of foreign opium were used seventeen years ago, the quantity required now is only 6,500. That is to say, nearly one-fourth of the smokers there have adopted the native and cheaper article instead of the dear Indian product. Probably we have here arrived at a law of change which may, to a great extent, justify the prediction that in about fifteen years more, if diplomacy makes no more changes, the whole Indian import will be less by one-fourth or one-third than it now is. The central provinces will then lose to India three million taels per annum less than at present. In Peking and Tientsin the people still love foreign opium, but the use of it all over the north is steadily declining. In that part of China the effect of the import of this drug on the currency has never been very great. But it has been sufficient to prevent unanimous action on the part of successive governors of the northern provinces in prohibiting resolutely the cultivation of the poppy. They preferred that evil to the increased

use of the Indian drug. To stop opium smoking as a vice was they thought impracticable, but at least they might prevent the silver of the people from being carried away to foreign lands to buy a drug which wastes their resources and impoverishes the country.

Since 1882, when these observations were made, the import of opium has diminished. In 1898 it was for all China 49,785 piculs, costing £7,000,000. In 1899 it was 59,000 piculs, for which the payment was £8,400,000. In March, 1901, the price is about Taels 670 at Shanghai, or about £7,000,000 for the year.

Opium Drain of Silver from South China.

To understand the relation of currency to opium in China it is quite requisite to consider the trade of the southern ports separately and in groups. If the market rate of opium is \$500 a picul, then at Pakhoi, a small port on the west coast of the province of Canton, 1,000 piculs of opium cost the people there \$500,000. They buy the cheaper kinds. In 1888 they bought 1,100 piculs, and in 1885 the amount was 773 piculs. To pay for it they sent via Hongkong to Canton, and to Hongkong itself, \$600,000, and the value of exports and imports together was \$6,000,000. If the profit made on this sum was only ten per cent, nearly the whole of it was covered by what their opium cost. They threw away 5/6th of their profits for the gratification of smoking. The principal exports from that port are liquid indigo, hides, sugar, aniseed, and tin, and the people, if they must injure themselves, can afford to gratify their appetite in using the opium pipe when the industries which prepare these products for the market are thriving. There are four other ports in the province, namely, Canton, Lappa, Kowloon, and Swatow. Let these be grouped together. They imported in 1889 the large amount of 23,000 piculs of opium.* In 1899 it was 14,258 piculs, and in 1897 it was 12,376 piculs.†

* This was bought for about Taels 12,000,000.

† The value in silver of the import in 1897 was Taels 6,426,100.

For this enjoyment they parted with an enormous sum. They have a fancy there to buy a considerable quantity of Malwa, the dearest kind of foreign opium. The quantity consumed in previous years was reported as 8,000 piculs, or in one case 10,000. At other times it was not more than 4,000 or 6,000. A large amount of smuggling then existed. There is now much less smuggling because it has been rendered extremely difficult by the new system recently put in operation. We are in a position at present to know much more accurately than before the laws of the distribution of opium and its effects on particular localities. It may be said in regard to Canton itself, on account of its numerous industries producing in one year \$40,000,000 worth of exports and imports, that its population can better afford to pay for their opium pipe than the population in districts where these industries do not exist. The value of the exports and imports at Swatow last year was \$21,000,000, at Lappa \$5,000,000 and at Kowloon \$18,000,000. Out of the \$84,000,000 represented by these figures the owners consented to lose one-seventh for the luxury of opium smoking.

Do the profits made by the sugar industry in Swatow, joined to the other rather limited paper and cotton weaving industries, at all justify the people in that part of the province in their heavy expenditure? We cannot but admire the many forms of mechanical skill which flourish in the city of Canton and its neighbourhood. The favourable position of the city led to their introduction. Foreign trade created a demand, and the ingenuity of the people assisted in the origination of a great variety of useful trades. Tea and silk are both produced there. Chinaware and grass cloth, printed books, mats, fireworks, paper, tobacco, sugar, sugar-preserves, and packing cloth, all figure to a considerable extent in the exports. There is also a large seafaring population, bold and patient, and there are workers in silver and gold, glass blowers, brass founders,

artificers in ivory and in jade stone, and makers of every sort of clothing. Only a city conveniently situated for commerce, on an arm of the sea with good shelter for ships, could develop all these trades. In addition this city is the seat of government, and as such a centre to which taxes flow from all the cities of the province. Here, too, the graduates pass their examinations for the second degree. All this has tended to raise the standard of education and contributed to render the people well-to-do. While other southern ports part with dollars, Canton absorbs them. The multiplicity of her commercial products allows of this, and the constant drain of silver to Peking or elsewhere in the form of revenue increases the absorption of dollars. Last year, for instance, the city of Canton absorbed \$2,700,000. Under the direction of the treasurer the dollars he received would need, if intended for the north, to be first melted down and made into sycee or exchanged for sycee by bankers. In contrast with Canton, if we consider the character of the Swatow population we find that, excepting the cultivation of sugar, some grass cloth, paper and cotton cloth, they shew but little active industry. They are indeed strong and active as day labourers, and the native employers of labour have adopted steam machinery for refining sugar, but the labouring class have not risen to any repute for successful ingenuity as is the case at Canton. Yet Swatow needs in a year 7,000* piculs of opium, and the people there are very fond of Malwa. For this poor gratification, costing them \$3,500,000 in a year, they bear the tropical heat of the sugar plantations over a tract of country large enough to produce \$6,000,000 worth of sugar in a year. What is needed in the region to which Swatow belongs is an active anti-opium propaganda, and the wide introduction of useful trades suited to enrich the people and increase the revenue of the State. In this way habits of ingenious industry

In 1899 it was 5,600 piculs. This is a fall of one-fifth in ten years.

would take the place of the indolence and inefficiency caused by opium smoking. If the silk industry were introduced the climate would probably be found, as on the West River near Canton, very suitable. Tea should be cultivated in hilly districts. The manufacture of cotton cloth by Western machinery should be introduced. Workmen there have a very fine physique. The opportunity should be given them to learn to manufacture articles of daily use which they now buy from elsewhere. As to opium, they should be persistently taught not to use it. This can only be done by religious and moral teaching. Without these, laws and treaties become a dead letter. They will not submit to be restrained till the convictions of duty and self-interest are thoroughly aroused.

Chinese writers are constantly saying that the purchase of foreign coal from Japan and England causes a drain of silver. So they say also of English sheetings and American drills. Money leaves the country and makes it poorer than before. The Chinese will now feel this more strongly than hitherto because the production of silk and tea have become appreciably less profitable to them than they were. Thus they will be driven inevitably to the expansion of their manufactures and mining operations. But to adopt the same policy in supplying the demand for opium by a native product is a great error, however successful it has been of late years. They will be compelled to return by the way they came, and that after no long time. To prevent the opium drain of silver from the southern provinces the true policy is, not to meet the demand for this narcotic by an increased native production, but to encourage an anti-opium smoking propaganda. Smokers are, in the six provinces where foreign opium is still preferred, twice as numerous among the commercial classes as among the labouring classes. Nine in ten of the labourers are probably still free from the vice. Great efforts should be made to cure the victims in both classes and save the

enormous number of occasional smokers who are always approaching the day of helpless enthrallment. The governing classes must hold out encouragement to their foreign friends to assist them in this necessary propaganda.

Import of Silver and Copper to China.

Silver by weight is money, just as coins weighing each the same quantity of silver are money. It is the large extent of the commercial area of China that has till now prevented the adoption of a national coinage. Local rules of trade are fixed by commercial guilds; and guilds in different provinces take divergent views. There has been a good deal of caprice in the adoption of certain dollars. Certain guilds formerly favoured the old Spanish dollars. Others have favoured Mexicans, and others chopped dollars. Each Viceroy and Governor has the assistance of a Treasurer; and each Viceroy, Governor, and Treasurer is a new man from another province in every instance, and he is appointed in Peking on account of favourable influences which are there paramount at the time. The Treasurer and the higher officials being new to the province, find it advantageous to be in amicable relations with the commercial guilds. The officials are fresh to their work and are open to adopt the local policy, which is determined by the combined power of the native merchants in the form of guild action. Thus each great commercial city is like a small kingdom with a commercial parliament in which self-interest and local predilection are dominant. In these circumstances the form of money in which all can best unite is silver by weight. The importation of American silver during and since the Ming dynasty has been the unfailing stream by which the ruling currency of China has been kept in a flowing condition. America has itself used half its production in its internal coinage or in storing up bullion. A hundred years ago the population of China arrived at the

portentous height of two hundred millions, and it has been growing ever since. All this time commerce has been extending and the rich men have been growing richer. More silver therefore and copper also are constantly required. The merchants want them in the cities and the government wants them in Peking. The quantity of new metal required is in exact proportion to the growth of population, to the activity of merchants in extending their trade, and to the energy of the government in coining and in public works. The absorbing capacity of China for foreign silver and copper is therefore always on the increase, because the population never stops growing; the commercial classes like to extend their trade, and the government are compelled by passing events to institute expensive public works.

The cry of China for more silver and her dislike to the loss of it is a necessary instinct. Whether the silver be coined or uncoined does not much matter. It is the metal that is wanted. The market demand for silver coined or uncoined must in these circumstances continue without any great interruption. As to the relation of silver by weight to Chinese internal trade, it is so far like that in kingdoms, where silver dollars are the currency, that paper packets of the metal are in established use as money in making payments over an immense region of country. Taking China in its entirety, silver by weight is the dominant currency for large purchases. The smaller half of the country uses dollars in place of silver, and as more dollars are imported this area is constantly increasing. If the present importation of dollars continues, the region of dollar currency will gradually extend from the provinces where the import exists into the provinces which lie adjacent. The present residuum of chopped dollars will not increase but rather disappear. Good dollars will advance and attain a more extensive circulation as trade becomes yearly more active. But should the government adopt dollar coin-

age, this tendency would be accelerated. The cheapness of dollars has enabled China to increase her circulating medium very conveniently to herself during the last few years. While she can get such good dollars at such a cheap rate as she has been receiving, why should she trouble herself to have coins of her own? The import of her silver will go on for the present, although the price of silver is rising. The trade of the country wants it. China cannot produce her own silver. She must use that of foreign countries; and, among them Australia, Mexico, and United States must occupy the position of chief exporters of silver to satisfy the ever growing demand of China for her internal and foreign trade. India requires for her coinage the equivalent of forty-five million dollars a year. There the currency expands as trade increases. China lags behind India, but she also is on the ascending grade and needs annually more silver to use in the employment of labour and in the purchase of native and foreign goods. If the dollar rises in value and costs her twenty per cent. more, she will buy a smaller number of dollars, but she must still buy because she is, like India, always needing more silver.

China is always needing more copper cash, and this the government undertakes to supply. During the present peace, trade cannot but continue to flourish. Commercial transactions are larger and more numerous in amount. Silver meets the greater trade necessities, and wholesale dealers are able by means of it to complete their daily business. But copper is also required in the form of cash for the small transactions of the market and the shop. China is striving to meet this need by coining new cash. Enough copper is being imported in a year to make more than four million cash, if we suppose the cash to be pure copper and no alloy to be included. In fact, however, an immense quantity of copper is used in the arts, and a large percentage of zinc is mixed with copper in making the coins which are now being produced in various parts

of China. At present the Peking coining is specially energetic. Yet all the new cash made are not enough for the demand, and Japan contributes a share from her cash, as does Corea also to swell the total. China refuses nothing good. She can allow foreign cash to circulate with her own just as she welcomes foreign dollars to meet her ever growing needs. It is a good thing to encourage the import of copper cash from countries where copper is cheap, and it is for the interest of China not to prevent this.

Native Silver.

The present supply of new silver in China is chiefly from foreign countries. But there has always been in the country itself a certain limited production; and the whole mass of silver now in use in the currency must be regarded as much less than half native and much more than half foreign. It was when the population was one-sixth of what it now is, about 500 years ago, that silver began to be regularly sent to the capital as a representative of the taxes from the provinces, and gradually took the place of paper money, which had followed on the invention of block printing in the tenth century. The population being many times smaller there was much less spinning and weaving done, much less grain grown, a much smaller boat population, a much smaller number of shops and a much smaller class of commercial travellers. Yet when the demand was limited there was never enough silver to be used as a current representative of commodities and other property. It was never sufficient to be employed along with copper cash as now. The scientific traveller Richthoven, when describing the productions of Yünnan in 1872, says that the supply of silver from native sources in that province was at no time large. He was persuaded that Chinese native silver came mostly from Yünnan or from Wei-ning-chou in Kwei-chow. He was told that the Kwei-chow silver ore was very rich, of a black colour, looking like coal, and very plentiful. But the difficulty of

procuring it is great. Robbers attack the miners, and so also do the soldiers. Neither can the owners, the official administration, nor the miners retain the silver when it is procured, on account of the anarchy which reigns in the neighbourhood of the mines. Armed bands have too much their own way there. This is not the only difficulty. We are told that in the year 1556 a mine was opened at an expense of 30,000 taels. The silver obtained only amounted to 28,500 taels. The result was too discouraging to allow of the enterprise being continued. Richthoven shews that gold occurs in China in very many places, but not in sufficient quantity to render the search for it remunerative. It is true of China as of many other countries that gold and silver are found in not a few localities. But in regions where wages are high, the occupation of washing for gold does not attract workmen. It pays them too little. In China wages are very low because the population is large, and in consequence gold washing is much more common there than in countries where wages are high. But in fact wherever gold and silver are found in China it is in very small quantities. Mr. R. Pumpelly has printed a list of sixty districts where gold is a product in China. In topographical works, the existence of gold in any place where it has once been found is sure to be mentioned because it is a sign of good luck to the neighbourhood. The Red Book mentions silver as a production of Ning-yuen Fu, in that part of Szechuan which borders on Yünnan. Lien-chow in Canton province also counts it among the native productions. Another district very near Canton still produces silver. It is called Shun-tê. So also it is obtained at Shao-chou Fu, a prefecture of the northern part of the province of Canton. In the south-east part of the same province silver is also found in the prefectures of Hwei-chou and Ch'ao-chou. In the western prefectures of Kao-chou and Chao-ch'ing the same mineral occurs. Some localities are mentioned in Kuangsi as argentiferous, such as Sin-chou and

Ping-to Fu. In the Red Book it is recorded also that silver is found in Chiung-chang prefecture on the upper course of the Wei river in Kansu and on the Li river which flows from the west into the Tung-ting lake.

The state of matters in regard to native silver in China is on the whole that there is a hopelessly small production and that China must look to foreign countries for her chief supply. For this the present time of peace and expanding trade is highly favourable. Though the low value of silver is now a thing of the past, and the rate of exchange probably may continue to rise, China will still, while paying more for it, have to procure foreign silver by purchase and by loan, because the newly-produced commodities in passing from hand to hand always require a money representative, except in cases of pure barter. The import of foreign silver must continue because, for instance, the Chinese will still wish to buy foreign artillery, machinery, cloth, watches, and every sort of product made by the skilled workmen of the West. Within the period of three months the price of silver rose on one occasion from 3/6d. 4/2d. China therefore could buy one-sixth more of foreign products with the same amount of silver than she could three months before. More silver improves trade, and as trade increases in its prosperity yet more silver will be required. Though the price is greater the country will still require it for its growing trade.

The hardness of metals tends to keep them in existence during a very long period, especially when they are in such large irregular lumps as we see in China. The old silver of fifteen centuries ago, as in circulation at that time in South China, cannot have entirely disappeared. A large part of it must be contained in the current sycee of our time. This old silver was like that of other days, not so much the result of mining as of foreign trade. At that time Cambodia and Cochin China belonged to China, and the currency of South China thus became assimilated to that common in India in

those days. There are productive silver mines, too, in Cochin China, and the Chinese, while aware of this fact, tell us that before the Tang dynasty mining for silver in China is not much spoken of. The silver used was then mainly brought from foreign countries. The Golden Tartars made a steady effort to push paper money into a permanent position, but failed, and the paper issued by the government was about A.D. 1225 avoided by the people, who preferred the silver which had now become more plentiful through their trade with South China and with Bokhara and Persia.* The Mahomedans of Central Asia had great facilities afforded to them for trading with China by the existence of Tartar dynasties. The Kin, the Liao, the Si Hia, and the Yuen were all Tartar, and they ruled for different periods from A.D. 907 to 1368. Merchants brought silver and medicines to China to pay for silk piece goods. All this time the Canton trade and that of Amoy never rested. Mahomedan traders in the Indian Ocean were always busy securing everywhere commercial pre-eminence and, where it was possible, political power. Probably, therefore, of the old silver used in China before the Spanish conquests in America, four-fifths would be of foreign origin; and the result of those conquests has been that of the new silver circulating now in China, four-fifths are also imported from abroad, coming in the way of payment for silk, porcelain, and tea.

The History of Silver in China.

The history of silver in China shows that its value as compared with gold has fluctuated greatly since the beginning of the Ming dynasty, A.D. 1368. Rev. Peter Hoang, a Chinese priest of the Kiangsu mission, tells us that four ounces of silver were then equal in value to one ounce of gold. Silver was scarce and therefore dear, because then the trade with America had not commenced. In 1574, about eighty years after the

* *Ching Shih Wen*, ch. 49, p. 6.

discovery of America, and sixty-one years after the Pacific Ocean was first seen by Bilboa from the mountain tops of Nicaragua, the import of silver had been so large that seven or eight ounces of silver had the value of one ounce of gold. At the end of the Ming dynasty in 1635 gold was ten times as dear as silver. With the progress of trade, the value of silver diminished as compared with gold. In the time of Kang Hi more than ten ounces went to an ounce of gold. But under Chien Lung, about 1737, it became much cheaper. Twenty and more ounces went to pay for an ounce of gold. About A.D. 1840 silver was eighteen times cheaper than gold. In 1850 it was fourteen times cheaper and in 1882 eighteen times cheaper. On the whole it is quite clear that the value of silver, if judged by gold as the standard, has gone down in proportion to the growth of foreign trade. Silver became cheaper as more was imported. The discovery of the silver mines of America was therefore the undoubted cause in the main of the dominance of silver in China as the currency in all large transactions. The salaries of all officers are, as a rule, paid in silver, which is in fact of foreign origin. More than half of the taxes are paid in the same foreign silver. The duties at all custom-houses in the interior and on the coast are charged in the same foreign silver. For the last forty years Chinese writers have been saying, and they still say, that foreign trade deprives them of their silver and that the foreign merchant grows rich at their expense. They forget that foreign trade brought them the silver they possess, and that it is only since the great maritime discoveries made by European navigators four centuries ago that they have been able to abandon an unsafe paper currency for a silver currency of solid utility.

The value of copper cash as a medium for purchasing articles in the market has undergone a regular depreciation since the time when the Chinese had not yet adopted silver as their chief medium of currency. We may see this in historical

statements by Sung dynasty authors. In the eleventh century Shen Kwo tells us the amount of tea sold in his time at the chief places of trade in Hupeh, Honan, Anhui, and Kiangsu. North China depended on Central China for its tea then as now, and the Sung dynasty Emperors levied a tax on it at custom-houses in a line running east and west through these four provinces. He mentions the value of the tea sold and paid for in copper cash or its paper equivalent. The phrase *tung shang* of those days meant "freedom to trade" between north and south. This had been interrupted by anarchy and the Sung dynasty gave it as a boon to the people. At Kuang-chon in Honan 307,216 catties of tea were sold for 12,456,000 cash. Hence we learn that forty cash bought a catty. At Shou-chou in An-hui a catty was bought for seventy-four cash. At Lu-chou in Honan forty-eight cash was the price. At Shang-ch'êng in Honan sixty-seven cash was the price. About fifty cash a catty was expected on an average for an article which was sold in immense quantities to the northern people at that time as now. At present if we say that a picul of tea costs sixteen taels and rate a revenue tael at fifteen hundred cash, a catty of tea costs 240 cash. Thus it may be seen that the depreciation of copper for purchasing articles in the market in 800 years has been such that five cash now are required to buy what one cash would have bought then. From this it will be seen that China might easily be content with copper as a currency in the days of paper money. The country people had not any need to carry to market more than one-fifth of the copper they have to carry now when they wish to buy. There was also a convenient system of cash notes, tea notes, silk notes, and grain notes. These paper notes were exchangeable for so much cash or tea or silk as was mentioned on the note. So far as these were confirmed by official stamps they would obtain a wide circulation. But they were partly of course notes issued by private commercial houses.

X If it be asked what are the causes of this great diminution in the purchasing power of copper cash, it may be replied that silver in the Ming dynasty became its competitor. In proportion as silver took its place, coined copper was no longer in so much request. Official salaries, for example, entirely ceased to be paid in cash. In all large transactions copper is bulky compared with silver, and it lost ground with the trader. Its value gradually fell, and when it began to tread the downward path, its pace was accelerated by the ever increasing weight which operated against its easy conveyance. If then it be asked why copper is still greatly in demand so as to be coined in Peking and in the provinces just now in large quantities, it may be answered that it is the currency of the poor as much as ever, and the increasing population must have a coin of small value to take to market. It is not that copper can ever recover its former value in commerce. That is impossible. But while the country has so many poor and while the land and other property continues through excess of population to undergo such perpetual subdivision, copper cash must continue to be a very important part of the currency of the empire, and be useful to the majority for the purchase of the small conveniences of life.

New Silver Coinage.

The proclamation of the Tientsin and Ho-kien Taotai and the Customs Taotai at Tientsin in August shows that the Canton dollars and parts of dollars, made by the order of the late Viceroy Chang Chih-tung, are a legal tender in any part of China. The immediate basis of this action of the two Taotais was the order of Viceroy Li, Governor-General of Chihli. The proclamation is local, but its contents show that the new dollar has full Imperial sanction. Yet its use is tentative, and this is probably one of the reasons that two Taotais were directed to issue the announcement. The words are: "The

Canton local administration have purchased mint machinery and commenced coining dollars as an experiment. The Board of Revenue memorialised the Emperor on the subject and the Imperial consent was given. Li, the present Governor-General of Canton, has communicated specimens of the coins to Li, the Governor-General of Chihli, who has sent some to us with the order to issue this proclamation announcing that these coins are to be in use in future as coins of China. We have examined them and observed that they are like foreign dollars, except that there is a curling dragon, outside of which foreign characters are embossed. On the front are the words 'current coin of Kuang Hsü' and 'minted at Canton.' The treasury weight of these coins is stated. Orders were given to make them in weight and size similar to the dollars common in trade, and they were to be of good metal and to agree one with another in all respects. Hence they ought to be and are now issued as current coin for the benefit of trade, as by this proclamation indicated. Orders are therefore hereby given to all merchants and others that from the issue of this announcement the Canton coins are to be taken at their standard value. Their price is not to be lowered. They are not to be refused as strange. Let all know that heavy punishment will be dealt to those who impede their circulation."

China has now, like Japan, a silver coinage of her own, and the way is open for her also, if she pleases, to form a national bank, extend her silver coinage and make it the basis of a paper currency on European principles. This mint, however, was established later by nearly twenty years than the Japanese mint. In China changes take place slowly. The government is just now uncertain as to how far the new coins will be circulated. They may be accepted less willingly than Mexicans, and the more pure silver they contain the greater will be the temptation to tamper with them till they become like the chopped dollars of the southern ports. But this

coinage is certain evidence that China is resolved to follow in the path of European progress. The Canton mint is in fact a tentative mint for China, and these coins are tentative coins for the empire.

The memorial to the throne on this subject of the Canton viceroy with the Emperor's approval of the coinage has also been published in the Shanghai native newspapers. Thus the year 1890 is an important epoch in the history of Chinese Currency.

The Spread of Morphia.

Messrs. Röcher and Hippisley, Commissioners of Customs, have both, in the Shanghai Trade Reports, given it as their opinion that the sale of morphia ought to be specially restricted. During ten years, the use of this preparation from opium by the Chinese, has spread with remarkable rapidity. For the first time, morphia appeared in Trade Reports as a separate item among foreign sundries, in the year 1891. Before this it was only covered up under the general title of medicines in the annual *Returns of Trade* which are published by the Imperial Customs. The annual import amounts now to about 150,000 ounces, while in 1891 the value stated in the Amoy trade report is Tls. 1,079. This represents from 400 to about 750 ounces. Two years later the Amoy import reached 2,632 ounces. In 1898, the amount stated is 11,810 ounces. The Commissioner remarks that the morphia habit is making continual and rapid progress. An increasing number of shops, both at Amoy and in the interior, advertise morphia pills as a cure for the opium habit; generally it is taken in the form of pills, but subcutaneous injection is rapidly coming into favour. He adds that the use of morphia is more injurious than the opium habit, as it is the most harmful of the narcotic alkaloids contained in opium and cheaper, and, being more convenient for use, a greater number of persons are able to indulge in the habit; the retail price of an ounce bottle is \$3 to \$3.20. The rapid

increase in the use of morphia at Amoy is accompanied by a diminution in opium import. In 1897, Amoy purchased 4,306 piculs of foreign opium, and in 1898 the quantity was 3,790 piculs, which was less by 12 per cent. In 1899 the Amoy people bought 3,984 piculs. At the same time poppy crops go on increasing in area every year. The total production of native opium was in 1897 valued at \$2,400,000 for the district in which Amoy is situated; native opium bought at Amoy amounted to 1,000 piculs in 1898. This was bought from Yünnan and Szechuan. If we compare these figures with those of the year 1882, when the entire import of opium at Amoy was 8,000 piculs, there is a probability that the disastrous opium habit is still increasing in a part of China where it has existed for about 170 years. This is unhappily a picture of all China; the people will, against remonstrances, injure themselves by this habit. They expend the capital made by their labour in the purchase of a distinctly injurious article. This prevents the use of the same capital in productive industries. This pernicious effect of the opium habit is very clearly seen in the trade in exports at Amoy. In 1898, the Amoy exports of tobacco, tea, paper, sugar, boots, and shoes, China ware, bricks, samshu, umbrellas, fishing nets, garlic, and vermicelli, amounted in value to Tls. 2,550,000. In 1882, they amounted to Tls. 4,865,000. The opium habit, through the misemployment of capital, has caused the exports to decline one-half in sixteen years. From an economical point of view it appears therefore that the opium habit is far and away the greatest hindrance now existing to the industrial productiveness of Chinese labour; the falling off occurs in sugar, tea, and paper. Sugar export fell from the value Tls. 937,000 to the value Tls. 716,000. The export of paper fell during the same sixteen years from the value Tls. 316,000 to the value Tls. 266,000. The tea export has fallen from a value of Tls. 2,600,000 to Tls. 147,000. Opium is the bane of Amoy, and it cost the

people Tls. 2,300,000 in 1882, Tls. 2,370,000 in 1898, and Tls. 1,776 000 in 1899.

At Swatow, the next neighbour of Amoy, the sugar export has risen during the same interval of sixteen years from a value of five millions of taels to six millions. The entire exports at Swatow amounted to Tls. 7,000,000 in 1882, and to Tls. 13,000,000 in 1898. Morphia is not mentioned in the imports, and it is probably still unknown there. The foreign opium imported has dropped from 10,000 piculs in 1879 to 4,500 in 1898. In 1899 it rose again to 5,598 piculs. Native opium paid duty on 489 piculs in 1898 and on 625 piculs in 1899. It may be concluded therefore that, because there is less devotion to the opium habit in Swatow, there is a greater development of the industries which produce wealth. As additional evidence on this point it may be mentioned that in the Trade Report for 1895, Mr. Simpson stated that the small area devoted to poppy cultivation near Swatow does not increase. The demand for opium must be less than it was to account for this fact. The exports become, in this view, of special interest; the most valuable are sugar, Tls. 6,000,000; tobacco, Tls. 914,000; paper, Tls. 900,000; native cotton cloth, Tls. 628,000; grass cloth, Tls. 580,000; indigo, Tls. 196,000. The superiority of Swatow to Amoy in industries is very remarkable; the industries are much the same, but the quantities of exports are five or six times greater at Swatow than at Amoy; industry at Amoy is paralysed by the opium habit. At Swatow, there is less opium and no morphia, and a diminution in opium smoking leads to a great increase in the products of native industry.

Morphia follows closely in the foot-steps of opium; wherever the paralysing effect of the opium habit is severely felt, morphia receives an invitation to enter. In 1892 it appeared in only two trade reports—those of Amoy and Shanghai. In 1895 it occurs in that of Canton for the first time and also in

that of Foochow. In 1896 morphia went up the Yangtze River to Kiukiang. In 1897 it reached Chinkiang, and in 1898 Hankow. It was in that year in seven trade reports only. We may predict that it will follow everywhere the opium scourge. Recourse is had to morphia when the tyranny of the opium habit is most severely felt. Morphia in the form of pills is a cheap substitute for opium smoking, and this accounts for its rapid extension. The subcutaneous injection will not be preferred by many persons to the pills. The disfigurement of the skin by ugly scars is too inconvenient to become a widespread fashion. How is it in Kiangsi? If Kiukiang expended Tls. 856,000 in buying opium in 1882, and Tls. 1,500,000 for the injurious article in 1898, the people have now less capital to extend their industries. Accordingly we find that the value of tea export has fallen from Tls. 6,700,000 in 1882, to Tls. 4,496,900 in 1898. Yet there has been a large increase in the export of paper, porcelain, grass cloth, and vegetable tallow. Notwithstanding this fact, the presence of morphia is a forewarning of evil to come in the province of Kiangsi. The import was 577 ounces in 1898 and 2,433 ounces in 1899. Such a rapid increase in the use of a deleterious drug is most melancholy.



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